

### west virginia department of environmental protection

Office of Oil and Gas 601 57<sup>th</sup> Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Monday, September 24, 2018 WELL WORK PLUGGING PERMIT Vertical Plugging

EQT PRODUCTION COMPANY 625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for 4651 47-017-02046-00-00

This well work permit 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 any additional specific 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of 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.

Per 35 CSR 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) 926-0450.

> James A. Martin Chief

Operator's Well Number: 4651

**WILSON** Farm Name: U.S. WELL NUMBER: 47-017-02046-00-00

Vertical Plugging

Date Issued: 9/24/2018



## **PERMIT CONDITIONS**

West Virginia Code §22-6-11 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. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.
- 4. This well is under a consent order and must be plugged under the terms of that agreement.

WW-4B Rev. 2/01

1) Date May 21 20 18 2) Operator's 09/28/2018 Well No. 604651 M.H. Wilson #4651 3) API Well No. 47-017 - 02048

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

APT: 47-017-70432

### APPLICATION FOR A PERMIT TO PLUG AND ABANDON

| 1  |               |                             |                     | Waste disposal /       |
|----|---------------|-----------------------------|---------------------|------------------------|
|    | E£ #          | Gas, Production or          | Underground attrace | Deap/ ShallowX         |
|    |               | 943                         | Middle              | Fork                   |
|    | Dia           | strict Union                | County Ritchie      | Quadrangle Oxford      |
| 6) | Well Operator | EQT Production Company      | 7)Designated Age    | ent Jason Ranson       |
|    | Address       | 2400 Ansys Drive- Suite 200 |                     | 120 Professional Place |
|    |               | Canonsburg PA 15317         |                     | Bridgeport WV 26330    |
| 8) |               | aspector to be notified     | 9) Plugging Contr   | ractor                 |
|    | Name Michael  | Goff                        | Name Hydro          | Carbon Well Service    |
|    | Address 172   | 3 Auburn Road               | Address Po          | O Box 995              |
|    | Pull          | man WV 26421                | Bi                  | uckhannon WV 26201     |

10) Work Order: The work order for the manner of plugging this well is as follows: See Attachment for details and procedures.

RECEIVED
Office of Oil and Gas

SEP 1 8 2018

WV Department of Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

Victoral Daff

Date 9-17-18

### PLUGGING PROGNOS

604651 M.H.Wilson #4651 API# 47-017-02046 District, Southwest Doddridge County, WV Ritchie

BY: R Green DATE: 6/14/18

CURRENT STATUS: TD @ 1926' Elevation @ 943'

10" casing @ 183' 8 1/4" casing @ 875' 6 5/8" casing @ 1746' 3" tubing @ 1925' (set on 3" X 6 5/8" packer @ 1786')

Fresh Water@ None Reported Saltwater@ None Reported Oil Show @ None Reported Gas shows @ 1691' (Maxton) 1839' (Big Injun) Coal @ 515'

- Notify inspector, Daniel Flack @ 304-545-0109, 24 hrs. prior to commencing operations.
- 2. Check pressures on casing and tubing to determine integrity of 3" tubing.
- 3. If 3" tubing integrity is determined to be OK, proceed to step #4, if integrity is not good, call EOT supervisor and WV-DEP inspector.
- 4. TIH, check TD @ or below 1900', & locate 3"X 6 5/8" packer.
- 5. TIH and perforate 3" tubing below packer with 10 holes 1900' to 1800'.
- 6. Rig up and spot 30 bbl. of 6% gelled water, followed by a 100' C1A cement plug, 1900' to 1800'.
- 7. WOC 8 hrs. Tag TOC, add additional C1A cement if necessary.
- 8. TIH and cut 3" tubing @ top of packer (1786'), TOOH 3" tubing.
- 9. TIH and set a 286' C1A cement plug 1786' to 1500' (6 5/8" casing seat & gas @ 1691').
- 10. Free point 6 5/8" casing, cut casing @ free point. TOOH 6 5/8" casing.
- 11. TIH and set a 100' C1A cement plug 50' in/out of easing cut. Perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
- 12. TOOH to 1050', set a 300' C1A cement plug 1050' to 750'.(elevation @ 943' & 8 1/4" casing seat @ 875')
- 13. Free point 8 4" casing, cut casing @ free point. TOOH 8 4" casing.
- 14. TIH and set a 100' C1A cement plug 50' in/out of casing cut. Perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
- 15. TOOH to 550' set a 100' C1A cement plug 550' to 450'. (Coal @ 515').
- 16. TOOH to 250' set a 125' C1A cement plug 250' to 125'. (10" casing seat).
- 17. Free point 10" casing, cut casing @ free point. TOOH 10" casing.
- 18. TIH and set a 100' C1A cement plug 50' in casing cut to surface Perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
- 19. \* Note if unable to cut and pull 10" casing, TIH and perforate 10" casing with 4 holes each @ 120', 100',75', TIH and set a 125' C1A cement plug,125' to surface.
- 20. Erect monument with API#, date plugged, & company name.
- 21. Reclaim location and road to WV-DEP specifications.

ng WV Department of Environmental Protection



## STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

| Permit No.       |              |   | WELL    | RECORD      | )                    | Oil or (       | Gas Well (KIND)  |
|------------------|--------------|---|---------|-------------|----------------------|----------------|------------------|
| Company Pit      | tsburgh & 1  | lest Va Ges C                           | ompeny. | Casing and  | Used in              | Left in        |                  |
| Address Clar     | rkeburg, W   | est Va.                                 |         | Tubing      | Drilling             | Well           | Packers          |
| 47 90            | 1-12 T       |   | Acres   | Size        |                      | -              |                  |
| Location (water  | HOTOLO       | ok N/E. 3-1-                            |         | 16          |                      |                | Kind of Packer   |
| Well No. 4032    |              |   | ridge   |             |                      |                | Anchor           |
| DIBETICE         | thwest       | County                                  |         | 13          | 1831                 | 1831           | Size of 8-1/4" X |
| The surface of t |              | n fee by                                |         | 10          | 8751                 | 8751           | 6-5/8#           |
|                  |              | _Address                                |         | 6%          | 17461                | 17461          | Depth set 1685   |
| Mineral rights   | are owned by |   |         | 5 8/16      |                      |                | Depair 2.12      |
| Drilling comme   | April        | 9th, 1918                               |         | 8           |                      |                | Perf. top        |
| Drilling comme   |              | th, 1918                                |         | 2           |                      |                | Perf. bottom     |
|                  |              | To To                                   |         | Liners Used |                      |                | Perf. top        |
|                  |              | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |         | V           |                      |                | Perf. bottom     |
| Open Flow        | /10ths Water | r in                                    | Inch    | CASING CEME | NTED                 | SIZE           | No. Ft. Date     |
|                  |              |   |         |             |                      |                |                  |
|                  |              | lbs                                     |         | COAL WAS E  | NCOUNTERE            | 515            | FEET 24 INCHES   |
|                  |              |   |         |             |                      |                | PEET INCHES      |
|                  |              | feet                                    |         | FEET        |                      |                |                  |
| Salt water       |              | feet                                    | feet    | FEET        | INC                  | HES            | FEETINCHES       |
| Formation        | Color        | Hard or<br>Soft                         | Тор     | Bottom      | Oil, Gas<br>or Water | Depth<br>Found |                  |
| lav              | Red          | Soft                                    | 0       | 15          |                      |                |                  |

| lay          |  | Soft      | Тор  | Bottom | or Water | Found                   |  |
|--------------|--|-----------|------|--------|----------|-------------------------|--|
|              | Red  | Soft      | 0    | 15     |          |                         |  |
|              | Light  | Hard      | 15   | 60     |          | 1 1                     |  |
| ed Rock      | Red  | Soft      | 60   | 200    |          |                         |  |
| late         | Light  | 11        | 1.00 | 150    |          |                         |  |
| ima          | 11   | Hard      | 150  | 190    |          | Vi I                    |  |
| ed Rock      | Red  | Soft      | 190  | 260    |          |                         |  |
| ima          | Light  | Hard      | 260  | 300    |          |                         |  |
| ed Rock      | Red  | Soft      | 300  | 340    |          |                         |  |
| ime          | Light  | Hard      | 340  | 515    |          |                         |  |
| cal          | Inghe  | 21000 -   | 515  | 527    |          |                         |  |
| ed Rock      | Red  | Soft      | 517  | 590    | ľ        |                         |  |
| ittle Dunkar |  | n         | 590  | 645    | 1        |                         |  |
|              | Light  | Hard      | 645  | 665    | 1        | 1 1                     |  |
| ine          | Red  | Soft      | 665  | 675    |          |                         |  |
| ed Rock      | Trent  | Doza      | 675  | 700    |          |                         |  |
| latesShells  | 74 mbs   | Hard      | 700  | 740    |          | 1 10                    |  |
| ime          | Light  | I HALL    | 740  | 770    |          |                         |  |
| ig Dunkard   |  |           | 770  | 860    |          |                         |  |
| late&Shells  | T 4 -3-5   | Hard      | 860  | 1020   | /        |                         |  |
| ime          | Light  | ti ti     | 1020 | 1105   |          |                         |  |
| et.Salt Sand |  | **        | 1105 | 1125   |          |                         |  |
| dine         |  | 11        | 1125 | 1210   |          |                         |  |
| nd.Salt Sand | Derk   | Soft      | 1210 | 1290   | 1        |                         |  |
| late         |  | Hard.     | 1290 | 1470   |          | 4                       |  |
| rd.Salt Sand | Derk   | Soft      | 1470 | 1585   |          | 1 1                     |  |
| late         |  | Hard      | 1585 | 1620   | 1        | 1                       |  |
| th Salt Sars | Linging  | near      | 1620 | 1670   |          | 1 - A - 7 - 12 - 24 - 1 |  |
| late@hells   | 72-24  | Hard      | 1670 | 1714   | Gas      | 1691-16971              |  |
| lamma Sand   | Light  | Soft      | 1714 | 1719   |          |                         |  |
| late         | Dark   | Hard      | 1719 | 1727   | 1        | 1 1                     |  |
| ittle Line   | ta   | Soft      | 1727 | 1730   |          |                         |  |
| encil Cave   | The Control of the Co | Hard      | 1730 | 1790   |          | The second second       |  |
| ig Limo      | Light  | Haru      | 1790 | 1874   | Gas      | 1839-1849               |  |
| ilg Injun    |  | G-84      | 1874 | 1926   | 1000     |                         |  |
| late         | Dark   | Soft      | min  | 1926   |          | 1                       |  |
| otal Depth.  |  | ********* |      |        |          |                         |  |
|              |  | 1         |      |        |          |                         |  |



Select County: (017) Doddridge Select datatypes: (Check All) Location Production **2** Plugging Enter Permit #: 70432 Owner/Completion Stratigraphy Sample Sample Get Data Reset Pay/Show/Water Logs Bim Hale Loc

County Code Translations
Permit-Numbering Series
Usage Notes
Contact Information
Discharge WVGES Main

WV Geological & Economic Survey:

Well: County = 17 Permit = 70432

Report Time: Monday, September 24, 2018 12:58:20 PM

There is no Bottom Hole Location data for this well

Owner Information:

API CMP\_DT SUFFIX STATUS SURFACE\_OWNER WELL\_NUM CO\_NUM LEASE LEASE\_NUM MINERAL\_OWN OPERATOR\_AI\_COMPLETION PROP\_VD PROP\_TRGT\_FM TFM\_EST\_PR
4701770432 44 Original Los Completed M H Wilson 1 Carter Oil & Gas Co

ompletion information:
PI CMP\_DT SPUD\_DT ELEV DATUM FIELD DEEPEST\_FM DEEPEST\_FMT INITIAL\_CLASS FINAL\_CLASS TYPE CMP\_MTHD TVD TMD NEW\_FTG KOD G\_BEF G\_AFT O\_BEF O\_AFT

There is no Pay data for this well

There is no Production Gas data for this well

There is no Production Oil data for this well \*\* some operators may have reported NGL under Oil

There is no Production NGL data for this well \*\* some operators may have reported NGL under Oil

There is no Production Water data for this well

There is no Stratigraphy data for this well

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

There is no Sample data for this well

WW-4A Revised 6-07 1) Date: May 21, 2018
2) Operator's Well Number
604651 M.H. Wilson #4651

3) API Well No.: 47 - 017 - 02046

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

| Surface Own | ier(s) to be served:                                   | 5) (a) Coal Operator  |  |
|-------------|--|---|--|
| (a) Name    | See Atlached   | Name  |  |
| Address     |  | Address   |  |
| (b) Name    |  | (b) Coal Own  | er(s) with Declaration   |
| Address     |  | Name  | See Attached   |
|             |  | Address   |  |
| (c) Name    |  | Name  |  |
| Address     |  | Address   |  |
| nspector    | -  | (c) Coal Lesse  | ee with Declaration  |
| Address     |  | Name  |  |
|             |  | Address   |  |
| Telephone   |  |   |  |
|             | (a) Name<br>Address<br>(b) Name<br>Address<br>(c) Name | (a) Name Address  (b) Name Address  (c) Name Address  Inspector Address | (a) Name See Attached Name Address  (b) Name (b) Coal Own Name Address  (c) Name Address  (c) Name Address  Inspector (c) Coal Lesse Name Address  Address  Name Address |

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

| A TOTAL       | OFFICIAL SEAL                        |
|---------------|--------------------------------------|
| 100 m         | NOTARY PUBLIC                        |
| 15 de la      | STATE OF WEST VIRGINIA               |
| 的是此社员产品       | REBECCA L. WANSTREET                 |
| Harman .      | EQT PRODUCTION COMPANY               |
| No. Joh       | PO BOX 280<br>BRIDGEPORT, WY 26330   |
| diam's diam's | My commission expires April 07, 2020 |

| Well Operator | EQT Production Company      | On Re-            |
|---------------|-----------------------------|-------------------|
| By:           | Erin Spine                  | office of Ou      |
| Its:          | Regional Land Supervisor    | 1114              |
| Address       | 2400 Ansys Drive, Suite 200 | 22                |
|               | Canonsburg PA 15317         | EDWINDO           |
| Telephone     | (304) 848-0035              | Environmental mer |
| The second    |                             | 1700              |

Subscribed and sworn before me this 21 day of JUNE 2018

My Commission Expires 4-7-2000

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:depprivacyoffier@wv.gov">depprivacyoffier@wv.gov</a>.

### 47-017-02046

604651 (M.H. Wilson #4651)

## Owner(s) (Surface and Access)

David Dale Ball Jr. 3756 Sugar Run Road West Union, WV 26456

## **Coal Owner(s):**

David Dale Ball Jr. 3756 Sugar Run Road West Union, WV 26456

## **Potential Water Owner(s):**

Brian Harriman 2058 Pleasants Hollow Rd. West Union WV 26456

Donald Vansant 14187 Dave Ave. Mount Airy MD 21771

Office RECEIVED

JUN 2 2 2018

Environmental Protection

WW-9 (5/16)

API Number 47 - 017 02046\_ Operator's Well No. 604651 M.H. Wilson #4651

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

| Operator Name EQT Production Company  | OP Code  |
|---|--|
| Watershed (HUC 10) Middle Fork  | Quadrangle Oxford  |
| Do you anticipate using more than 5,000 bbls of water to  | o complete the proposed well work? Yes No 🗸  |
| Will a pit be used? Yes ✓ No  |  |
| If so, please describe anticipated pit waste: F   |  |
| Will a synthetic liner be used in the pit? Yes  | ✓ No If so, what ml.? 20 ml  |
| Proposed Disposal Method For Treated Pit Wa   | stes:  |
|   | provide a completed form WW-9-GPP)   |
| - P   | Permit Number)   |
| Reuse (at API Number  | rm WW-9 for disposal location)   |
|   | mit w w -9 for disposariocation)   |
| Will closed loop systembe used? If so, describe:  |  |
|   | norizontal)? Air, freshwater, oil based, etc.  |
|   | etc.   |
| Additives to be used in drilling medium?  |  |
| Drill cuttings disposal method? Leave in pit, landfill, re  | emoved offsite, etc  |
|   | will be used? (cement, lime, sawdust)  |
| -Landfill or offsite name/permit number?  |  |
| West Virginia solid waste facility. The notice shall be pr  | il and Cas of any load of drill cuttings or associated waste rejected at any rovided within 24 hours of rejection and the permittee shall also disclose  |
| on April 1, 2016, by the Office of Oil and Cas of the W provisions of the permit are enforceable by law. Violatic or regulation can lead to enforcement action.  I certify under penalty of law that I have per application form and all attachments thereto and that, bathe information, I believe that the information is true, submitting false information, including the possibility of Company Official Signature | rs and conditions of the GENERAL WATER POLLUTION PERMIT issued vest Virginia Department of Environmental Protection. I understand that the cons of any term or condition of the general permit and/or other applicable law rsonally examined and am familiar with the information submitted on this used on my inquiry of those individuals immediately responsible for obtaining accurate, and complete. I am aware that there are significant permits of the confidence of t |
| Company Official (Typed Name) Erin Spine  | Environmental P  |
| Company Official Title Regional Land Supervisor   | ,  |
| 21  | 16   |
| Subscribed and sworn before me this de  | ay of June , 2018  |
| Characco Omonis   | Notary Public  |
| My commission expires $4-7-2020$  | OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRIGINIA REBECCA L. WANSTREET EQUIPMENT OF THE PRODUCTION COMPANY   |

09/28/2018 Operator's Well No.604651 M.H. Wilson #4651

| Lime 3   | tment: Acres Disturbed<br>Tons/acre or to corre  | Preveg etation pH   |  |
|--|--|---|--|
| Fertilizer type _(1  | 0-20-20) or equivalent   |   |  |
| Fertilizer amount  | 1/3 ton  | lbs acre  |  |
| Muleh 2  |  | Ions acre   |  |
|  |  | Seed Mixtures   |  |
| T  | emporary   | Perma   | nent   |
| Seed Type  | lbs/acre   | Seed Type   | lbs/acre   |
| Red Fescue   | 40   | Red Fescue  | 15   |
| Aslike Clover  | 5  | Aslike Clover   | 5  |
| Annual Rye   | 15   |   |  |
| Attach: Maps(s) of road, location, p provided). If water from the (L. W), and area in acres, o Photocopied section of invo | e pit will be land applied, pr<br>f the land application area.   | nd application (unless engineered plans inclure rovide water volume, include dimensions (L. | ding this info have been<br>. W. D) of the pit, and dime     |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited the land application area.  | t.  | ding this info have been<br>. W. D) of the pit, and dim      |
| Maps(s) of road, location, p<br>provided). If water from the<br>(L, W), and area in acres, o                               | the land applied, profited the land application area.  | t.  | . W. D) of the pit, and dime                                 |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited the land application area.  | t.  | . W. D) of the pit, and dime                                 |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited the land application area.  | t.  | . W. D) of the pit, and dime                                 |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited the land application area.  | t.  | . W. D) of the pit, and dime                                 |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited the land application area.  | t.  | . W. D) of the pit, and dime $O_{\it ffice} \stackrel{R}{c}$ |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited the land application area.  | t.  | Office of SEP  |
| Maps(s) of road, location, provided). If water from the (L. W), and area in acres, or Photocopied section of involved      | the land applied, profited applied, profited and application area.  Shoul Land application area.  Shoul Land applied applied area. | Hoched areas.   | . W. D) of the pit, and dime                                 |

## EQT Production Water plan Offsite disposals

## Waste Management - Meadowfill Landfill

Rt. 2, Box 68 Dawson Drive Bridgeport, WV 26330 304-326-6027 Permit #SWF-1032-98 Approval #100785WV

## **Waste Management - Northwestern Landfill**

512 E. Dry Road Parkersburg, WV 26104 304-428-0602 Permit #SWF-1025 WV-0109400 Approval #100833WV

Office of Oil and Gas

JUN 22 2018

WV Department of Environmental Protection

Topo Quad: Oxford 7.5' 1" = 200' Scale: County: Ritchie May 15, 2018 Date: District: Union Project No: 67-30-00-08 Topo 47-017-02046 WV 604651 (M. H. Wilson #4651) Pit Location Map HOLLOWR 47-017-02046 WV 604651 Office of Oil and Gas JUN 2 2 2018 WV Department of Environmental Protection **Existing Well** Access Road NAD 27, North Zone N:246918.38 E:1617295.32 WGS 84 LEGEND LAT:39.170127 LONG:-80.849689 Proposed Pit Location ELEV:942.51 SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: ALLEGHENY SURVEYS, INC. EQT Production Company 2400 Ansys Drive 1-800-482-8606 Canonsburg, PA 15317 237 Birch River Road Birch River, WV 26610

PH: (304) 649-8606 FAX: (304) 649-8608

| Topo Quad:         | Oxford 7.5'   | Scale:      | 1" = 500'    | 03/20/2010   |
|--------------------|---|-------------|--------------|--|
| County:            | Ritchie   | Date:       | May 15, 2018 |  |
| District:          | Union   | Project No: | 67-30-00-08  |  |
| Highway            | 47-017-02046 WV 6046  | 51 (M. H    | l. Wilson    | #4651)   |
|                    | Pit Local Doddridge County Pairone County   | ition Map   |              | (52)   |
|                    | 47-017-02046<br>WV 604661<br>Existing Well Access Road  | 52          |              | (52)   |
| LEGE<br>Propose    | END ad Pit Location   | 2224        | '\           | NAD 27, North Zone<br>N:246918.38<br>E:1617295.32<br>WGS 84<br>LAT:39.170127<br>LONG:-80.849689<br>ELEV:942.51 |
| EGHEN<br>V SURVEYS | SURVEYING AND MAPPING SERVICES PERFORM  ALLEGHENY SURVEYS  1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608 |             | 2400         | ction Company<br>Ansys Drive<br>burg, PA 15317   |

Oxford 7.5' 1" = 2000" Topo Quad: Scale: Ritchie County: May 15, 2018 Date: Union District: 67-30-00-08 Project No: Topo 47-017-02046 WV 604651 (M. H. Wilson #4651) Hart Cem Wilson Ridge Office of Oil and Gas WV Department of Environmental Protection 7-017-02046 WV 604651 PLEASANT HOLLOW RUN RO South [] Branch WELL PERMITTED East Cem ORIGINALLY IN DOODE, COS .. PLUCEING PERMIT LET IN DODORIGECO. 1000 NAD 27, North Zone N:246918.38 SUGAR RUN E:1617295.32 WGS 84 LAT:39.170127 Holbrook LONG:-80.849689 ELEV:942.51 SURVEYING AND MAPPING SERVICES PERFORMED BY: PREPARED FOR: ALLEGHENY SURVEYS, INC. **EQT Production Company** 



1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608 2400 Ansys Drive Canonsburg, PA 15317



## POTENTIAL WATER SAMPLE DATA SHEET

| CLIENT:   | EQT PRODUCTION | N COMPANY   |  |
|-----------|----------------|---|--|
| LEASE NAM | E AND WELL No. | M. H. Wilson #4651 - WV 604651 - API No. 47-017-02046 |  |

## POTENTIAL SAMPLE LOCATIONS

| Site: 1 Spacing: 831 +/- Owner: Brian Harriman            |          |  |
|---|----------|--|
| Address: 2058 Pleasant Hollow Rd., West Union, WV 26456 . | Phone No |  |
| Comments:   |          |  |
| Site: 2 Spacing: 835 +/- Owner: Donald Vansant            |          |  |
| Address: 14187 Day Ave., Mount Airy, MD 21771             | Phone No |  |
| Comments:   |          |  |

Office of Oil and Gas

JUN 2 2 2018

WW Department of Environmental Profession

BIRCH RIVER OFFICE
237 Birch River Road
Birch River, WV 26610
phone: 304-649-8606 fax: 304-649-8608

BRIDGEPORT OFFICE 172 Thompson Drive

172 Thompson Drive Bridgeport, WV 26330 phone: 304-848-5035 fax: 304-848-5037 ALUM CREEK OFFICE
P.O. Box 108 \* 1413 Childress Road
Alum Creek, WV 25003
phone: 304-756-2949 fax: 304-756-2948



## Miss Utility of West Virginia (WV811) (Exhibit A) Directions to Gas Well No. WV 604651 API No. 47-017-02046

- Beginning at the intersection of US Interstate 79 Exit 79 (Burnsville/Glenville) and WV State Route 5 in Braxton County, WV.
- Proceed Northwest on WV State Route 5, for approximately 9.6 miles, to WV County Route 13, on the right.
- Turn right onto WV County Route 13 and proceed Northeast, for approximately 3.1 miles, to WV County Route 26, on the left.
- Turn left onto WV County Route 26 and proceed Northwest, for approximately 4.5 miles, to the junction of US Routes 33 & 119.
- Turn right onto US Routes 33 & 119 and proceed Northeast, for approximately 1.8 miles, to Office of Oil and Gas

- Turn left onto WV County Route 47 and proceed Northwest, for approximately 3.6 miles, to

  Environmental Protection
- Bear right onto WV State Route 18 and proceed Northeast, for approximately 9.4 miles, to WV County Route 19, on the left.
- Turn left onto WV County Route 19 and proceed Northwest, for approximately 5.9 miles, to WV County Route 52, on the left. (Point No. 1)

BIRCH RIVER OFFICE 237 Birch River Road Birch River, WV 26610 phone: 304-649-8606 fax: 304-649-8608

BRIDGEPORT OFFICE 172 Thompson Drive Bridgeport, WV 26330 phone: 304-848-5035 fax: 304-848-5037

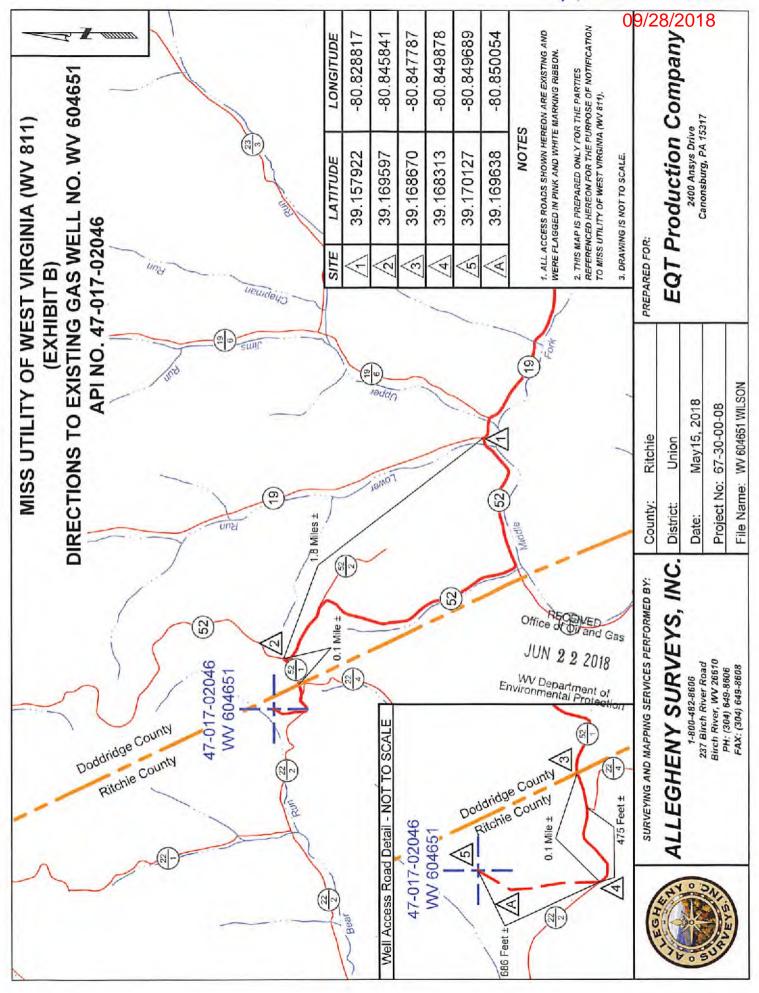
ALUM CREEK OFFICE P.O. Box 108 · 1413 Childress Road Alum Creek, WV 25003 phane: 304-756-2949 fax: 304-756-2948

- Turn left onto WV County Route 52 and proceed Northwest, for approximately 1.8 miles, to WV County Route 52/1, on the left. (*Point No. 2*)
- Turn left onto WV County Route 52/1 and proceed Southwest, for approximately 0.1 mile, to WV County Route 22/2, at the county line. (Point No. 3)
- Continue Straight and Southwest onto WV County Route 22/2, for approximately 0.1 mile, to the Well Access Road, on the right. (*Point No. 4*)
- Turn right onto the Well Access Road and proceed North, for approximately 686 feet, arriving at Gas Well WV 604651. (*Point No. 5*)

Office of Oil and Gas

JUN 2 2 2018

WV Department of Environmental Protection



WW-7 8-30-06



# West Virginia Department of Environmental Protection Office of Oil and Gas WELL LOCATION FORM: GPS

| FARM NAME: M. H. Wils  | son   |  |
|--|---|--|
| TARGAT TARABA  | SOIT  |  |
| RESPONSIBLE PARTY NAM  | ME: EQT Production Company  |  |
| COUNTY: Ritchie*   | DISTRICT: Union*  |  |
| QUADRANGLE: Oxford 7.5   | 5'  |  |
| SURFACE OWNER: Janice I  | L. Ball   |  |
| ROYALTY OWNER: Janice  | L. Ball   |  |
| UTM GPS NORTHING: 4335   | 5667  |  |
| UTM GPS EASTING: 5129  | GPS ELEVATION: 287 m  | (943 ft)   |
| The Responsible Party named ab   | ove has chosen to submit GPS coordinates  | in lieu of   |
| preparing a new well location pland<br>bove well. The Office of Oil and<br>the following requirements:   | at for a plugging permit or assigned API nu<br>d Gas will not accept GPS coordinates that   | mber on the<br>do not meet   |
| preparing a new well location pla<br>above well. The Office of Oil and<br>the following requirements:<br>1. Datum: NAD 1983, Z   | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone: 17 North, Coordinate Units; meters.   | umber on the do not meet   |
| breparing a new well location pla<br>above well. The Office of Oil and<br>the following requirements:  1. Datum: NAD 1983, Z<br>height above mean sea<br>2. Accuracy to Datum –  | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone; 17 North, Coordinate Units; meters, A a level (MSL) – meters.   | umber on the do not meet   |
| breparing a new well location pla<br>above well. The Office of Oil and<br>the following requirements:  1. Datum: NAD 1983, Z<br>height above mean sea<br>2. Accuracy to Datum –<br>3. Data Collection Metho  | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone: 17 North, Coordinate Units: meters, A a level (MSL) – meters.  3.05 meters od:  | umber on the do not meet  Altitude:  Office of Oil and Gas   |
| breparing a new well location pla<br>above well. The Office of Oil and<br>the following requirements:  1. Datum: NAD 1983, Z<br>height above mean sea<br>2. Accuracy to Datum –  | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone; 17 North, Coordinate Units; meters, A a level (MSL) – meters.  3.05 meters od:: Post Processed Differential   | umber on the do not meet  Altitude:  Office of Oil and Gas  JUN 2 2 2018   |
| breparing a new well location pla<br>above well. The Office of Oil and<br>the following requirements:  1. Datum: NAD 1983, Z<br>height above mean sea<br>2. Accuracy to Datum –<br>3. Data Collection Methol<br>Survey grade GPS   | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone; 17 North, Coordinate Units; meters, A a level (MSL) – meters.  3.05 meters od: : Post Processed Differential: Post Processed Differential: Post Processed Differential: Post Processed Differential   | umber on the do not meet  Altitude:  Office of Oil and Gas   |
| breparing a new well location platbove well. The Office of Oil and the following requirements:  1. Datum: NAD 1983, Z height above mean sea 2. Accuracy to Datum — 3. Data Collection Methology grade GPS  Mapping Grade GPSX  | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone; 17 North, Coordinate Units; meters, And level (MSL) – meters.  3.05 meters od: : Post Processed Differential: Post Processed Differential   | Imber on the do not meet  Altitude:  Office of Oil and Gas  JUN 2 2 2018  WV Department of Environmental Protection                  |
| breparing a new well location platbove well. The Office of Oil and the following requirements:  1. Datum: NAD 1983, Z height above mean sea 2. Accuracy to Datum — 3. Data Collection Method Survey grade GPS  Mapping Grade GPS X  4. Letter size copy of the   | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone; 17 North, Coordinate Units; meters, A a level (MSL) – meters.  3.05 meters od:: Post Processed Differential: Post Processed Differential   | Imber on the do not meet  Altitude:  Office of Oil and Gas  JUN 2 2 2018  WW Department of Environmental Protection                  |
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| breparing a new well location planshove well. The Office of Oil and the following requirements:  1. Datum: NAD 1983, Z height above mean sea 2. Accuracy to Datum – 3. Data Collection Methology grade GPS  Mapping Grade GPS X  4. Letter size copy of the the undersigned, hereby certify the size copy of the size copy of the size copy of the the undersigned, hereby certify the size copy of the size  | at for a plugging permit or assigned API nud Gas will not accept GPS coordinates that Cone; 17 North, Coordinate Units; meters, A a level (MSL) – meters.  3.05 meters od:: Post Processed Differential: Post Processed | amber on the do not meet  Altitude:  Office of Oil and Gas  JUN 2 2 2018  WV Department of Environmental Protection  ation. edge and |

<sup>\*47-017-02046</sup> was permitted as Doddridge County but is actually located in Ritchie County.

47-017-020468 Topo Quad: Oxford 7.5' 1" = 2000" Scale: County: Ritchie May 15, 2018 Date: District: Union 67-30-00-08 Project No: Water 47-017-02046 WV 604651 (M. H. Wilson #4651) 2 Potential Water Sources within 1000 Hart Cem Wilson Ridge PLEASANT HOLLOW RUN RD Site 1

47-017-02046 WV 604651

Holbrook

South D Branch East Cem

> NAD 27, North Zone N:246918.38 SUGAR RUN E:1617295.32 **WGS 84**

LAT:39.170127 LONG:-80.849689 ELEV:942.51



SURVEYING AND MAPPING SERVICES PERFORMED BY:

## ALLEGHENY SURVEYS, INC.

1-800-482-8606 237 Birch River Road Birch River, WV 26610 PH: (304) 649-8606 FAX: (304) 649-8608

PREPARED FOR:

## EQT Production Company

2400 Ansys Drive Canonsburg, PA 15317