



west virginia department of environmental protection

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

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

Wednesday, August 28, 2019
WELL WORK PLUGGING PERMIT
Vertical Plugging

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for 4749
47-017-02069-00-00

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: 4749
Farm Name: GASTON
U.S. WELL NUMBER: 47-017-02069-00-00
Vertical Plugging
Date Issued: 8/28/2019

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 December 11, 2018
2) Operator's
Well No. 604749 Gaston #4749
3) API Well No. 47-017 - 02069

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

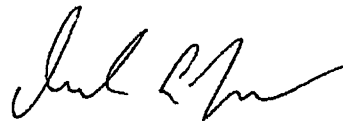
APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil ____ / Gas X / Liquid injection ____ / Waste disposal ____ /
(If "Gas, Production ____ or Underground storage ____) Deep ____ / Shallow X
- 5) Location: Elevation 1088 Watershed Camp Run
District Southwest County Doddridge Quadrangle Oxford
- 6) Well Operator EQT Production Company 7) Designated Agent Jason Ranson
Address 2400 Ansys Drive- Suite 200 Address 120 Professional Place
Canonsburg PA 15317 Bridgeport WV 26330
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Daniel Flack Name HydroCarbon Well Service
Address 58 Rive Road Address PO Box 995
Buckhannon WV 26201 Buckhannon WV 26201

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

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

Work order approved by inspector



Date

6/14/19

PLUGGING PROGNOSIS

604749
 M.O.Gaston #4749
 API# 47-017-02069
 District, Southwest
 Doddridge County, WV

DATE: 10/2/18

CCURRENT STATUS:

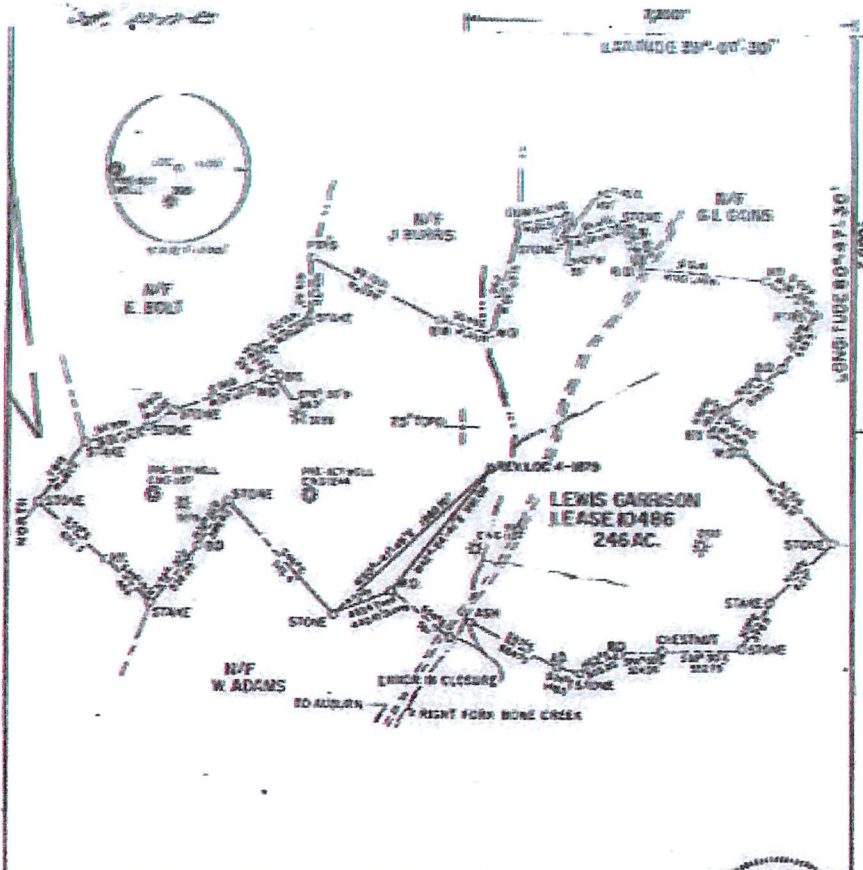
TD @ 1939'

Elevation @ needs surveyed

10" casing @ 177'
 8 1/4" casing @ 907'
 6 5/8" casing @ 1783'
 2" tubing @ 1939' (set on 2" X 6 3/8" packer @ 1795')

Fresh Water @ None Reported
Saltwater @ None Reported
Gas Show @ 1475'-1602'-1830'- 1870'
Oil shows @ None Reported
Coal @ None Reported

1. Notify inspector, Daniel Flack @ 304-545-0109, 24 hours prior to commencing operations.
2. TIH and locate packer and check TD @ or below 1900'.
3. Attempt to release packer and TOO H 2" tubing and packer, if unable to release packer and TOO H tubing, contact EQT supervisor. If able to release packer and TOO H tubing and packer, continue to next step.
4. TIH to 1900' and spot 80 bbl. of 6% gelled water followed by a 500' C1A cement plug, 1900' to 1400' (Gas show & 6 5/8" casing seat). WOC 8 hrs. Tag TOC, add additional C1A cement if necessary.
5. Free point 6 5/8" casing. Cut casing @ free point. TOO H 6 5/8" casing.
6. Set a 100' C1A cement plug 50' in/out of casing cut. Perforate all saltwater, freshwater, coal, oil and gas shows below cut. Do not omit any plugs.
7. TOO H to elevation set a 100' C1A cement plug across elevation. **1088'**
8. TOO H to 975' set a 200' C1A cement plug 975' to 775'. (8 1/4" casing seat).
9. Free point 8 1/4" casing. Cut casing @ free point. TOO H 8 1/4" casing.
10. Set a 100' C1A cement plug 50' in/out of casing cut. Perforate all saltwater, freshwater, coal, oil and gas shows below cut. Do not omit any plugs.
11. TOO H to 400' set a 300' C1A cement plug 400' to 100'. (10" casing seat).
12. Free point 10" casing. Cut casing @ free point. TOO H 10" casing.
13. Set a C1A cement plug 50' in casing cut to surface. Perforate all saltwater, freshwater, coal, oil and gas shows below cut. Do not omit any plugs.
14. **Note, If unable to cut and pull 10" casing. TIH wireline and perforate 10" casing with 4 holes each @ 100', 75', and 50'. TIH to 100', set a 100' C1A cement plug 100' to surface**
15. Erect monument with API#, date plugged, company name.
16. Reclaim location and road to WV-DEP specifications.



FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=200'
 MINIMUM DEGREE OF ACCURACY 1"=200'
 PROVEN SOURCE OF ELEVATION 8M 600' SOUTH OF LOC. ELEV 962

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES
 (SIGNED) James R. Disher
 R.P.E. 5993



(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-5 (8-78)



REVISED DATE 10-4, 19 85
 OPERATOR'S WELL NO. 4-1879
 API WELL NO. _____
47 085 6525-Rev.
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 IN "LBS." PRODUCTION STORAGE ___ DEEP ___ SHALLOW
 LOCATION ELEVATION 980' WATER SHED RIGHT FORK BONE CREEK
 DISTRICT UNION COUNTY BOONE
 QUADRANGLE AUBURN
 SURFACE OWNER MARINA ADAMS ACREAGE 246
 OIL & GAS ROYALTY OWNER LEWIS GARRISON MRS LEASE ACREAGE 246
 LEASE NO. 10496
 PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUS OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUS AND ABANDON ___ CLEAN OUT AND REPLUS ___
 TARGET FORMATION ALEXANDER ESTIMATED DEPTH 3200'
 WELL OPERATOR CARNEGIE NATURAL GAS CO DESIGNATED AGENT J.C. STEPHENSON, DIVISION SUPERINTENDENT
 ADDRESS 800 REBIS AVENUE ADDRESS PO BOX 387
PITTSBURGH, PA 15236 MANNINGTON, W VA 26582

7 1 6525-REV.

WW-4A
Revised 6-07

1) Date: December 11 2018
2) Operator's Well Number 604749 Gaston #4749
3) API Well No.: 47 - 017 - 02069

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

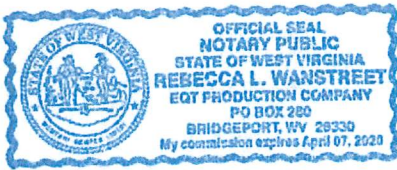
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>See Attached</u>	Name _____
Address _____	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>See Attached</u>
(c) Name _____	Address _____
Address _____	Name _____
Address _____	Address _____
6) Inspector <u>Daniel Flack</u>	(c) Coal Lessee with Declaration
Address <u>58 Rive Road</u>	Name _____
<u>Buckhannon WV 26201</u>	Address _____
Telephone <u>304-545-0109</u>	Address _____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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



Well Operator EQT Production Company
 By: Erin Spine
 Its: Regional Land Supervisor
 Address 2400 Ansys Drive, Suite 200
Canonsburg PA 15317
 Telephone (304) 848-0035

Subscribed and sworn before me this 18 day of December 2018
Rebecca L. Wanstreet Notary Public
My Commission Expires 4-7-2020

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 depprivacyofficer@wv.gov.

Owner(s) (Surface and Access)

William A. Armentrout and Sandra Matheny Armentrout
851 Mace Street
Elkview, WV 25071

Coal Owner(s)

Patricia Matheny
851 Mace Street
Elkview, WV 25071

Diane M. Myers
2737 Lifes Run
Jane Lew, WV 26378-8367

Gary C. Spurgeon
184 Fairview Road
Jane Lew, WV 26378-8369

Ronald L. Spurgeon
531 Henrie Lane
Williamstown, WV 26187-8245

Annetta E. Liebold
1400 Enterprise Drive Apt. N333
Lynchburg, VA 24502

Rhonda D. Kroeger
3184 Bancroft Road
Fairlawn, OH 44333

Amy M. Apinis
1418 Copley Meadows Drive
Copley, OH 44321

Potential Water Owner(s):

N/A

WW-9
(5/16)

API Number 47 - 017 - 02069
Operator's Well No. 604749 Gaston #4749

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 306686

Watershed (HUC 10) Camp Run Quadrangle Oxford

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: Formation Fluids

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20 ml

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

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

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc.

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

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.

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

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 *Erin Spine*

Company Official (Typed Name) Erin Spine

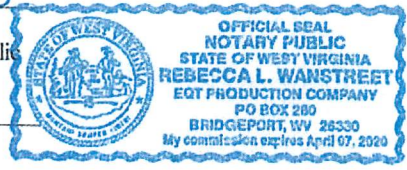
Company Official Title Regional Land Supervisor

Subscribed and sworn before me this 18 day of December, 20 18

Rebecca L. Wanstreet

Notary Public

My commission expires 4-7-2020



Proposed Revegetation Treatment: Acres Disturbed 1± Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type (10-20-20) or equivalent

Fertilizer amount 1/3 ton lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
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, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Comments: _____

Title: _____ Date: _____

Field Reviewed? () Yes () No

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

Topo Quad: Oxford 7.5'

Scale: 1" = 200'

County: Doddridge

Date: November 05, 2018

District: Southwest

Project No: 67-30-00-08

47-017-02069 WV 604749 (Gaston #4749)

Topo

Pit Location Map

CORIE 1917



Existing Well Access Road

47-017-02069
WV 604749

1200

NAD 27, North Zone
N:244414.15
E:1632688.12

WGS 84
LAT:39.163875
LONG:-80.795275
ELEV:1087.86

LEGEND



Proposed Pit Location



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
Cannonsburg, PA 15317

Topo Quad: Oxford 7.5'

Scale: 1" = 500'

County: Doddridge

Date: November 05, 2018

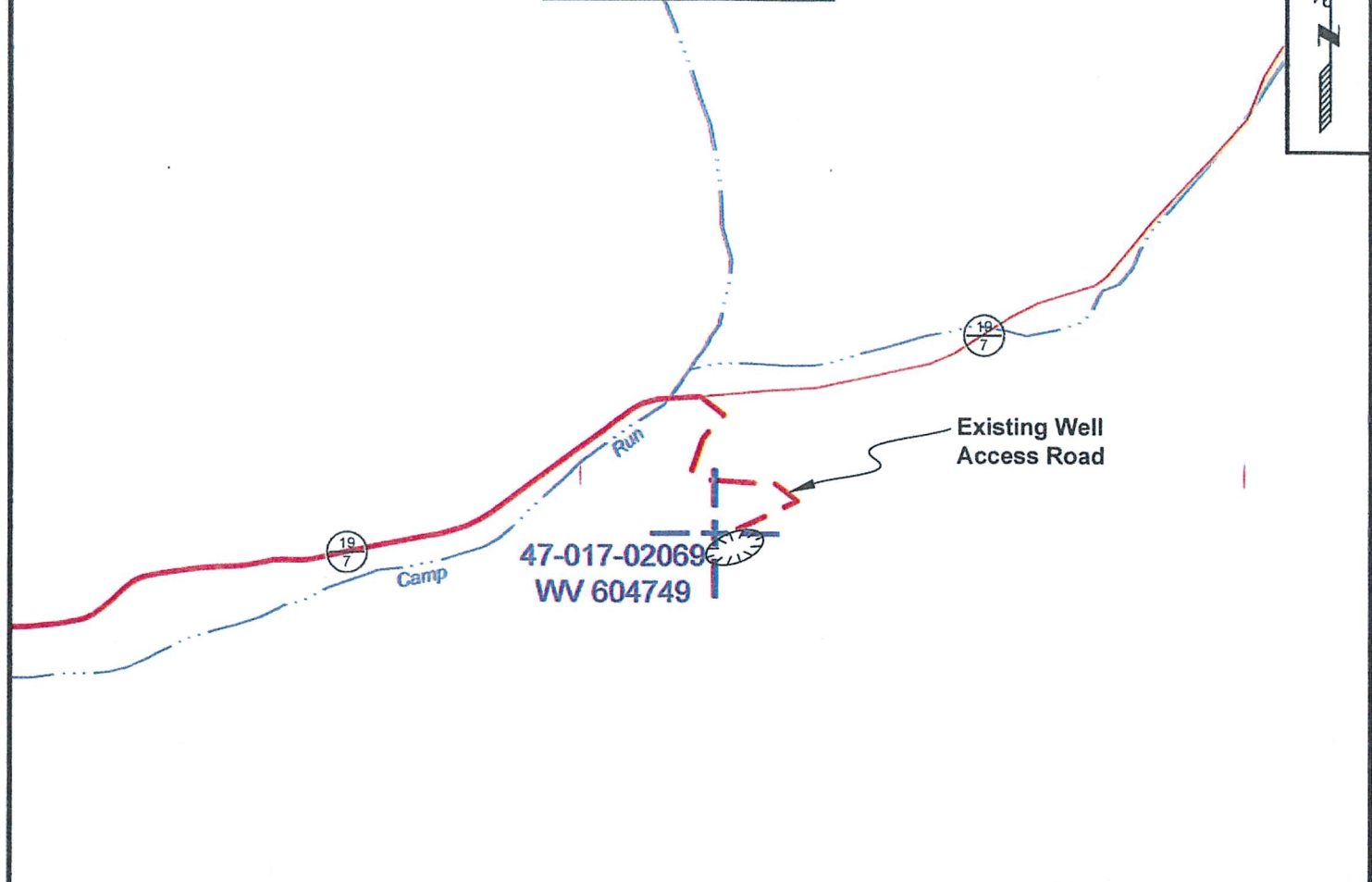
District: Southwest

Project No: 67-30-00-08

Highway

47-017-02069 WV 604749 (Gaston #4749)


Pit Location Map



NAD 27, North Zone
N:244414.15
E:1632688.12

WGS 84
LAT:39.163875
LONG:-80.795275
ELEV:1087.86

LEGEND

 Proposed Pit Location



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

PREPARED FOR:
EQT Production Company

2400 Ansys Drive
Cannonsburg, PA 15317

47-017-02069P

Topo Quad: Oxford 7.5'	Scale: 1" = 2000'
County: Doddridge	Date: November 05, 2018
District: Southwest	Project No: 67-30-00-08

47-017-02069 WV 604749 (Gaston #4749)

Topo



NAD 27, North Zone
N:244414.15
E:1632688.12

WGS 84
LAT:39.163875
LONG:-80.795275
ELEV:1087.86



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