



 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

Friday, January 4, 2019
 WELL WORK PERMIT
 Horizontal 6A / Fracture

EQT PRODUCTION COMPANY
 625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for ERLEWINE 8H
 47-103-02954-00-00

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.

Please be advised that form WR-35, Well Operators Report of Well Work 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: ERLEWINE 8H
 Farm Name: ERLEWINE, RICHARD
 U.S. WELL NUMBER: 47-103-02954-00-00
 Horizontal 6A Fracture
 Date Issued: 1/4/2019

API Number: 4710302954

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. 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.
2. 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.
3. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
4. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
5. 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.
6. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.



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Austin Caperton, Cabinet Secretary
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**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: EQT Production Company
625 Liberty Ave., Suite 1700
Pittsburgh, PA 15222

DATE: December 19, 2018
ORDER NO.: 2018-W-13

INTRODUCTION

This Order (hereinafter "Order") is issued by the Office of Oil and Gas (hereinafter "OOG"), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* and EQT Production Company (hereinafter "Operator"), collectively the "Parties."

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. EQT Production Company is a "person" as defined by W. Va. Code §22-6-1(n), with a corporate address as 625 Liberty Ave., Suite 1700, Pittsburgh, PA 15222.
3. On September 20, 2018, EQT Production Company submitted well work permit applications identified as API#s 47-103-02950, 47-103-02951, 47-103-02952, 47-103-02953, 47-103-02954, 47-103-02955 and 47-103-03012. The proposed wells are to be located on the Erlewine Pad in Proctor District of Wetzel County, West Virginia.
4. On September 20, 2018, EQT Production Company requested a waiver for Wetland A as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-103-02950, 47-103-02951, 47-103-02952, 47-103-02953, 47-103-02954, 47-103-02955 and 47-103-03012.

CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to...(3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the Office of Oil and Gas shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The Office of Oil and Gas may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.”

ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “[n]o well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for Wetland A from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit applications identified as API#s 47-103-02950, 47-103-02951, 47-103-02952, 47-103-02953, 47-103-02954, 47-103-02955 and 47-103-03012. The Office of Oil and Gas hereby **ORDERS** that EQT Production Company shall meet the following site construction and operational requirements for the Erlewine Well Pad:

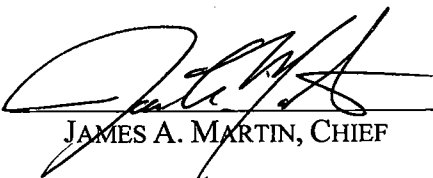
- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height;
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs;
- c. Wetland A shall have two layers of silt fence to prevent any sediment from reaching the wetland from the well pad. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual;
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill;
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill;
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls;
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs;
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period;
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies;
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

01/04/2019

Thus ORDERED, the 19th day of December 2018.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: 
JAMES A. MARTIN, CHIEF

01/04/2019

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: Multiple - see text below

Operator's Well Number: _____

API Numbers: 103-02950 to 103-029555; 103-02999; 103-03000; 103-03012

Well Operator: EQT Production Company

Well Number: _____ Well Pad Name: Erlewine

County, District, Quadrangle of Well Location: Wetzel County; Proctor District; New Martinsville Quadrangle

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows:

- (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir.
- (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake.
- (3) For a groundwater source, the distance shall be measured from the wellhead or spring.

The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary.

§22-6A-12(c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section.

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: Multiple - see text below

Operator's Well Number: _____

API Numbers: 103-02950 to 103-029555; 103-02999; 103-03000; 103-03012

Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.

The Erlewine Modification project is located in Wetzel County, WV. The limits of investigation (LOI) are 3.52 acres (AC) and encompass the entire limits of disturbance (LOD). One palustrine emergent (PEM) wetland was found within the LOI. This wetland is 0.03 AC and is located southeast of the existing well pad. The attached photographs and delineation map depict the site conditions, and the associated data sheet for the wetland is also enclosed. No perennial streams are present within the LOI.

2. Justify the proposed activity by describing alternatives to this project that were considered.

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

a. The No-Action Alternative will prevent completion of the wells. The expansion will provide sufficient area for the additional equipment and vehicles needed for well completion operations.

b. Location alternatives for the project are not feasible. This is an existing well site.

c. The options to maintain the 100-foot buffer were not feasible. Expansion to the north would result in an excess of spoil material, and expansion to the east is prevented by the 1:1 and steeper slopes immediately outside the project LOD. Expansion to the west was limited by the existing topography and did not allow for sufficient space.

d. The current proposed design is the least environmentally damaging practical alternative based on the existing site conditions and the surrounding topography. The proposed design utilizes previous earth work at the site to limit the amount of additional earth work required. As noted above in the discussion of considered options, the steepness of the site topography limits the configurations to the south and east. The necessary space has been obtained with the minimum required earth disturbance and avoiding any direct resource impacts.

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: Multiple - see text below

Operator's Well Number: _____

API Numbers: 103-02950 to 103-029555; 103-02999; 103-03000; 103-03012

- 3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.**

Wetland A will be protected as follows:

- silt fence will be placed directly downslope of the disturbed area
- temporary and permanent vegetative cover will be located above the wetland
- additional silt fence will be installed between the orange safety fence surrounding the wetland and the silt fence directly downslope of the disturbed area
- the existing site drainage features, which include toe key drains, well pad sumps, ditches, culverts, and well pad drains, prevent any discharge to the wetland
- a sump and rip rap apron will be installed for drainage of the south expansion area and will prevent discharge into the wetland

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.**

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

As outlined in Question 3, all existing drainage features on the site prevent discharge into the wetland.

Additional measures include:

- a second silt fence adjacent to the wetland and downslope of the initial silt fence
- temporary and permanent vegetation installed as soon as possible following disturbance above the wetland
- drainage features for the southern expansion that prevent discharge into the wetland

The attached exhibit provides a detail for the additional silt fence around the wetland.

12/4/2018 12:05:30 PM X:\Oil and Gas\ECT\2018\18070-078 Erlewine Pad\Cadd\Preliminary\Wetland Protection Plan.dgn

NOTES:

AS SOON AS PRACTICABLE FOLLOWING DISTURBANCE, OPERATOR SHALL INITIATE TEMPORARY & PERMANENT SEEDING AS OUTLINED IN THE WEST VIRGINIA E&S BMP MANUAL



LEGEND

- EXISTING TREE LINE
- EXISTING ROAD
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PROPERTY LINE
- PROPOSED FENCE
- EXISTING FENCE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- PROPOSED GAS LINE
- PROPOSED WATER LINE
- LIMITS OF DISTURBANCE
- FILL LIMITS
- CUT LIMITS
- EXISTING INDEX CONTOUR LINE (10')
- EXISTING INTERMEDIATE CONTOUR LINE
- PROPOSED INDEX CONTOUR LINE (10')
- PROPOSED INTERMEDIATE CONTOUR LINE
- CHANNEL FLOW DIRECTION
- STREAM
- DELINEATED STREAM
- DELINEATED WETLAND BOUNDARY
- ASSUMED FLOODWAY BOUNDARY
- RIPARIAN BUFFER
- COMPOST FILTER SOCK (CFS)
- EROSION CONTROL BLANKET
- WATERBAR
- TRENCH PLUG
- EXISTING UTILITY POLE
- EXISTING STRUCTURE
- FEMA 100 YEAR FLOODPLAIN



RICHARD L. ERLEWINE
06-46

NO.	DATE	REVISION

DIEFFENBAUCH & HRITZ
1085 Chaplin Road, Suite 200
Morgantown, WV 26501
www.dandengineers.com
P: 304.985.5555 F: 304.985.5557

CLIENT
EQT PRODUCTION COMPANY
2400 ANSYS DRIVE, SUITE 200
CANONSBURG, PA 15317

PROJECT
**ERLEWINE PAD
SITE MODIFICATION**

SCALE
1" = 40'
AUG 26/17
DATE
17070-015
PROJECT NO.

TITLE
WETLAND PROTECTION PLAN

1

DRAWING NO.



FIGURE 1. STREAM & WETLAND INVESTIGATION MAP
LIMITS OF INVESTIGATION TOTAL 3.62 AC

Legend

- Data Point
- 10' Contour Line
- Limits of Investigation
- ▨ Delineated Water Features
- ▧ PEM Wetland

Horizontal Scale: 1" = 60'
 Vertical Scale: 1" = 10'
 Total Scale: 1 inch = 60 feet

DATE: 01/04/2019
 PROJECT: ERLIEWINE MODIFICATION
 CLIENT: EOT PRODUCTION COMPANY
 DRAWN: [Name]
 CHECKED: [Name]
 ZIT: [Name]
 VIA: [Name]
 APPROVED: [Name]
 DATE: [Date]

Project No. 18870-078
 Client: EOT PRODUCTION COMPANY
 Designer: DIEFFENBAUGH & HIRTZ
 1005 Clayton Road, Suite 200
 Martinsburg, WV 25801
 P: 304.983.5555 F: 304.983.5507
 www.dieffenbaugh.com

No.	Rev	Description



Photograph # 1
DP1: facing northeast



Photograph # 2
DP2: facing north



Photograph # 3
Wetland A (DP3): facing west



Photograph # 4
DP4: facing southeast



Photograph # 5
DP5: facing south

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Erewine Modification City/County: Wetzel County Sampling Date: 9/14/2018
 Applicant/Owner: EQT Production Company State: PA Sampling Point: DP3
 Investigator(s): M. Wagner, Z. France Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 10-15
 Subregion (LRR or MRLA): LRR N Lat: 39.68244377 Long: -80.79705042 Datum: NAD83
 Soil Map Unit Name: Gilpin-Peabody complex (GpD) NWI Classification: PEM

Are climatic/hydrologic conditions of the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)

Are vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present?

Are vegetation No, Soil No, or Hydrology No naturally problematic? Yes X No _____

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		

Remarks: Explain alternative procedures here or in a separate report.)

Plot located within Wetland A.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: Check all that apply)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Moss Trim Lines (B18)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Recent Iron Reduction Tiled Soils (C6)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Iron Deposits (B5)		<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Aquatic Fauna (B13)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____
 Water Table Present? Yes _____ No Depth (inches): _____
 Saturation Present? Yes _____ No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present?

Yes No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Hydrology features are evident.

VEGETATION - Use scientific names of plants

Sampling Point: DP3

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot Size: <u>30 ft. radius</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
			= Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15-ft. radius</u>)				Prevalence Index worksheet: Total % Cover of _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
			= Total Cover		
Herb Stratum (Plot Size: <u>5 ft. radius</u>)				Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation x _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤ 3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Problematic Hydrophytic Vegetation ¹ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1.	Bamyard grass (<i>Echinochloa crus-galli</i>)	50	Yes		FAC
2.	Yellow nutsedge (<i>Cyperus esculentus</i>)	20	Yes		FACW
3.	Rice cut grass (<i>Leersia oryzoides</i>)	10	No		OBL
4.	Woolgrass (<i>Scirpus cyperinus</i>)	10	No		FACW
5.	Japanese Stilt Grass (<i>Microstegium vimineum</i>)	5	No		FAC
6.	Soft Rush (<i>Juncus effusus</i>)	5	No		FACW
7.					
8.					
9.					
10.					
11.					
12.					
			100 = Total Cover		
Woody Vine Stratum (Plot Size: <u>30-ft. radius</u>)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft. tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall. Woody vines - All woody vines greater than 3.26 ft. in height	
1.					
2.					
3.					
4.					
5.					
6.					
			= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.) Hydrophytic vegetation is present.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

SOIL

Sampling Point: DP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/1	95	10 YR 5/6	5	C	PL	SiCL	Sandstone Throughout
6-18	10 YR 4/1	100					SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	Indicators for Problematic Hydric Soils³
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F17)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136,122)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127,147)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 Hydric soil is present.

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

1) Well Operator: EQT Production Company 306686 Wetzel Proctor New Martinsville
Operator ID County District Quadrangle

2) Operator's Well Number: Erlewine 8H Well Pad Name: Erlewine

3) Farm Name/Surface Owner: Erlewine, Richard et al Public Road Access: Wetzel County Route 1/2

4) Elevation, current ground: 1212 Elevation, proposed post-construction: 1212

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow Deep _____
Horizontal _____

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6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 6692 TVD, 50' thick, anticipated pressure is 3800 to 4400 psig

8) Proposed Total Vertical Depth: 6692

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 11729

11) Proposed Horizontal Leg Length: 4641

12) Approximate Fresh Water Strata Depths: 100

13) Method to Determine Fresh Water Depths: Depth of bit when water shows in the flowline or when drilling soap is injected

14) Approximate Saltwater Depths: 1671

15) Approximate Coal Seam Depths: 988, 999

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: _____

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18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20	New	LS	94.1	90'	90'	40 CTS
Fresh Water	13.375	New	J55	54.5	1,220' KB-1,210' GL	1,220' KB-1,210' GL	1,077 CTS
Coal	13.375	New	J55	54.5	1,220' KB-1,210' GL	1,220' KB-1,210' GL	1,077 CTS
Intermediate	9.625	New	J55	36	2,398'	2,398'	Lead-533 Tail-430
Production	5.5	New	P110	20	11,711'	11,711'	Lead-422 Tail-2,598
Tubing	2.375	New	J55	4.7			N/A
Liners	N/A						

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TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20	24	0.375"	N/A	40 psi	Type 1	1.18
Fresh Water	13.375	17.5	0.380"	2,730 psi	2,184 psi	HalCem Class "A"	1.21
Coal	13.375	17.5	0.380"	2,730 psi	2,184 psi	HalCem Class "A"	1.21
Intermediate	9.62	12.25	0.352"	3,520 psi	2,816 psi	Lead-VariCem Tail-HalC	Lead-1.24 Tail-1.21
Production	5.5	8.75	0.361"	12,360 psi	10,112 psi	Lead-TunedSpacer Tail-HalC	Lead-2.37 Tail-1.20
Tubing	2.375	N/A	0.190"	7,700 psi			
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Well has been drilled to TD, propose to perforate and fracture the Marcellus and turn into production.

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, gelling agent, gel breaker, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 barrels of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 400,000 pounds of sand per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): no additional

22) Area to be disturbed for well pad only, less access road (acres): no additional

23) Describe centralizer placement for each casing string:

Surface casing had bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, and 28.
Intermediate casing had bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28, 32, and 36.
Production casing had rigid centralizers placed on every fourth joint beginning with joint 2 to joint 138. Ran a total of 35 rigid spiral centralizers. Ran bow spring centralizers from joint 141 to joint 246 on every third joint. A total of 36 bow spring centralizers were run.

24) Describe all cement additives associated with each cement type:

Fresh Water/Coal cement is typically Class A w/ 0.25 pps Cello-Flake and 1.0% to 3.0% CaCl₂. Intermediate cement is a lead/tail blend with the lead being Class A with 10% Salt and 0.25 pps Cello-Flake. Tail is Class A with 0.25 pps Cello-Flake and 1.0% to 3.0% CaCl₂. Production cement is a lead/tail blend with the lead being HES's GASSTOP blend w/ 0.8% Retarder and tail being HES's HALCEM blend w/ 0.65% Retarder and 0.1% Dispersant or SLB with lead/tail with the lead being Class A w/ 10% Salt or Class A w/ FlexSeal and the tail being Class A w/ 0.2% Dispersant, 0.4% Fluid Loss, 0.2% Anti-Foam, 0.15% Retarder, and 0.2% Anti-Settling Agent.

25) Proposed borehole conditioning procedures:

Fresh Water/Coal section will be done by circulating air through the drill string at TD between 30 and 90 minutes or until the well bore clears of cuttings.

Intermediate section will be done by circulating air and/or stiff foam through the drill string at TD between 30 and 120 minutes or until the well bore clears of cuttings.

Production section will be done by circulating drilling fluid through the drill string at TD between 120 to 720 minutes (a minimum of 3 bottoms up) until the shakers are clear of cuttings.

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*Note: Attach additional sheets as needed.

Well: Erlwine #8H
 State: West Virginia
 County: Wetzel
 District: Proctor
 Prospect: Mary
 Location: Surface: North = 4,392,644 East = 517,395 (UTM NAD 83)
 PBHL: North = 4,391,066 East = 518,092 (UTM NAD 83)
 PTD: 12400' MD / 6840' TVD

STONE ENERGY - PROPOSED HORIZONTAL

Revision: 1-Oct-13

Permit Number: 47-103-
 Permit Issued:
 Post Construction Ground Elevation: 1212'
 Kelly Bushing: 18'
 Rig:
 Spud Date:
 TD Date:
 Rig Release Date:

HOLE SIZE	PILOT HOLE FORMATION TOPS	WELLBORE DIAGRAM	CASING & CEMENTING DATA DIRECTIONAL DATA	MW & FLUID TYPE	HOLE DEV.	
24" Hole then Driven	80' KB (62' BGL)		CONDUCTOR PIPE 20" x 3/8" wall L/S PE @ 80' (set in bedrock & grouted to surface)		Vertical	
17-1/2" Hole	Shallowest FW 75' TVD Pittsburgh Coal 925' TVD Deepest FW 930' TVD 1190' TVD		SURFACE CASING 13-3/8" 54.5# J-55 STC @ 1190' MD/TVD Set through fresh water zones Set through coal zones Cemented to surface	Air / Mist	Vertical	
12-1/4" Hole	Salt Water 1800' TVD Little Lime 2022' TVD Big Lime 2052' TVD Big Injun Sandstone 2152' TVD Base of Big Injun 2252' TVD 2400' TVD		INTERMEDIATE CASING 9-5/8" 36.0# J-55 LTC @ 2400' MD/TVD Set through potential salt water zones Set below base of Big Injun Cemented to surface	Stiff Foam	Vertical	
8-3/4" Hole	Berea Sandstone 2620' TVD Gordon Sandstone 2865' TVD			Air / Dust		
8-3/4" Hole			KOP @ 6077' TVD			
8-3/4" Hole	West Street Shale (Base) 6186' TVD				WBM In Curve	
8-3/4" Hole in Lateral	Middlesex Shale 6280' TVD West River Shale 6310' TVD Genesee Shale 6645' TVD Tully Limestone 6665' TVD Hamilton Shale 6725' TVD					
8-3/4" Hole in Lateral	Marcellus Shale 6765' TVD				WBM in Lateral	~89.5°
	Onondaga Limestone 6815' TVD					
				Landing Point (LP) @ 7350' MD / 6790' TVD ~89.5° angle ~162° azimuth		
					TD @ 12400' MD / 6840' TVD PRODUCTION CASING 5-1/2" 20.0# P-110 CDC @ 12400' MD Top of Cement @ 1400' (~1000' inside 9-5/8")	

Notes: Formation tops as per vertical pilot hole
 Curve & lateral tops will vary due to structural changes
 Directional plan based upon best estimate of structure

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10302954

STONE ENERGY - AS DRILLED TOP HOLE with SLANT 01/04/2019

Revision: 6-Nov-14

Well: **Erlewine #8H TOP HOLE** (AFE# 2014-0331T)
 State: **West Virginia**
 County: **Wetzel**
 District: **Proctor**
 Prospect: **Mary**
 Location: Surface: (N) 433,648' (E) 1,634,887' StPI WV North NAD 27
 PBHL: (N) 433,527' (E) 1,635,128' StPI WV North NAD 27
 PTD: 5793' MD / 5781' TVD

Permit Number: 47-103-02954
 Permit Issued: 1/8/2014
 Post Construction Ground Elevation: 1212'
 Kelly Bushing: 10'
 Rig: Highlands Rig #2
 Spud Date: 7/23/2014
 TD Date: 7/29/2014
 Rig Release Date: 7/29/2014

HOLE SIZE	FORMATION TOPS	WELLBORE DIAGRAM	CASING & CEMENTING DATA	MW & TYPE	HOLE DEV.	
Pre-Set Conductor	90' KB (80' BGL)		CONDUCTOR PIPE 20" @ 90' (set in bedrock & cemented)		~0.24°	
17-1/2" Hole (Hammer)	Shallowest FW 100' TVD Coal 318' TVD Coal 770' TVD Coal 988' TVD Pittsburgh Coal 999' TVD Deepest FW 1008' TVD 1222'		SURFACE CASING Air / Mist 13-3/8" 54.5# J-55 STC @ 1222' KB - 1212' GL Set through fresh water zones Set through coal zones Cement to surface		~0.25°	
12-1/4" Hole (Rock Bit)	RED BEDS Salt Water 1671' TVD Little Lime 2014' TVD Big Lime 2044' TVD Big Injun 2144' TVD Base of Big Injun 2244' TVD 2398'		INTERMEDIATE CASING Air/Foam 9-5/8" 36.0# J-55 LTC @ 2383' KB Set through potential salt water zones Set below base of Big Injun Cement to surface		~0.44°	
8-3/4" Slant (Hammer)	Berea 2612' TVD Gordon 2857' TVD		Performed Slant due to anti-collision concerns			
	5781' TVD			TOP HOLE TD @ 5793' MD / 5781' TVD (~129' above planned KOP)	Air / Dust	~5.51°
	Rhinestreet 6178' TVD					
	Middlesex 6272' TVD					
	West River 6302' TVD					
	Geneseo Shale 6637' TVD					
	Tully LS 6657' TVD					
	Hamilton Shale 6717' TVD					
	Marcellus Shale 6757' TVD					
	Onondaga LS 6807' TVD					

01/04/2019

WW-9
(4/16)

API Number 47 - 103 - 02954

Operator's Well No. Erlwine 8H

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) Tributary of Proctor Creek Quadrangle New Martinsville

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: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 0014, 8462, 4037)
- Reuse (at API Number Various)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

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Will closed loop system be used? If so, describe: _____
Yes, The closed loop system will remove drill cuttings from the drilling fluid. The drill cuttings are then prepared for transportation to an off-site disposal facility.

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

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

Additives to be used in drilling medium? See Attached

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

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 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 [Signature]

Company Official (Typed Name) Erin Spine

Company Official Title Regional Land Supervisor

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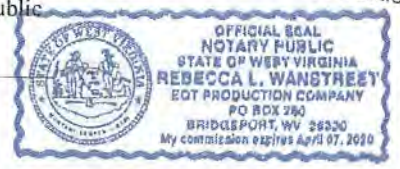
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Subscribed and sworn before me this 2 day of October, 2018

[Signature] Notary Public

My commission expires 4-7-2020



WW-9 Attachment

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

- Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud may be necessary depending on hole conditions to stabilize and drill the intermediate section. The pilot hole, curve, and lateral sections will be drilled with either air, water based mud, or oil based mud.

Additives to be used in drilling medium?

- Air - biodegradable oil lubricant, detergent, defoaming, water. Water based mud – Barite, viscosifer, alkalinity control, lime, filtration control, deflocculates, biodegradable oil lubricant, defoaming, walnut shell, salt, x-cide, carbonates. Oil based mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.

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EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed No Additional Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 1/3 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike 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, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

Title: Oil + Gas Inspector

Date: 10-4-18

Field Reviewed? Yes No

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WW-9 ADDENDUM

Drilling Medium Anticipated for This well

- Vertical section of well bore, down to KOP, will be drilled on air and/or a combination of air and drilling soap.
- From KOP through the curve section and horizontal section of well bore will be drilled on a brine-water based mud system.

Additives to be Used While Drilling

- Common additives when air drilling: KCl (CAS No. 1302-78-9 & 14808-60-7), soda ash (CAS No. 497-19-8), shale stabilizer (CAS No 67-48-1 & 7732-1835), drilling soap (CAS No. 111-76-2), air hammer/motor lubricant.
- Common water based additives for mud drilling: NaCl (CAS No. 7647-14-5), KCl (CAS No. 7447-40-7), barite (CAS No. 13462-86-7 & 14808-60-7), starch (CAS No. 9005-25-8), PAC (CAS No. 9004-32-4), xanthum gum (CAS No. 11138-66-2), PHPA (CAS No. 64742-47-8), polysaccharide (CAS No. 11138-66-2), sulfonated asphaltic material (CAS No. 269-212-0 & 238-878-4), aluminum silicate (CAS No. 37287-16-4), gilsonite (CAS No. 12002-43-6), graphite (CAS No. 14808-60-7 & 7782-42-5), shale stabilizer (CAS No. 67-48-1 & 7732-18-5), fluid loss control polymers (CAS No. 9004-34-6), viscosity control polymers (CAS No. 11138-66-2 & 107-22-2), soda ash (CAS No. 497-19-8), sodium bicarbonate (CAS No. 144-55-8), NaOH (CAS No. 1310-73-2, 7647-14-5, & 7732-18-5), lime (CAS No. 1305-62-0), gypsum (CAS No. 778-18-9), citric acid (CAS No. 77-92-9), biocide (CAS No. 52-51-7 or 7732-18-5 + 67-56-1 + 141-43-5), CaCO₃ (CAS No. 471-34-1), cellulose fibers (CAS No. 14808-60-7), nut plug (CAS No. 9004-34-6 & 14808-60-7), cross-linking polymers (CAS No. 107-22-2 & 11138-66-2), other LCMs, surfactants (CAS No. 64-17-5), ROP enhancer/lubricant (CAS No. 300-92-8002-13-9), beads, corrosion inhibitor (CAS No. 7732-18-5), aluminum stearate (CAS No. 300-92-5), defoamer (CAS No. 246-771-9).

MSDS are available upon request.

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WW-9 ADDENDUM

Drill Cuttings Disposal Method

- Closed loop drilling system will be incorporated. No waste pits will be constructed. All drill cuttings are put through a drier system and hauled to and disposed of at approved and permitted landfills.

Landfills or Offsite Names and Permit Numbers

Wetzel County Sanitary Landfill
 Rt. 1, Box 156A
 New Martinsville, WV 26155
 SWF-1021 / WV01909185

Brooke County Sanitary Landfill
 Colliers, WV 26035
 SWF-1013 / WV0109029

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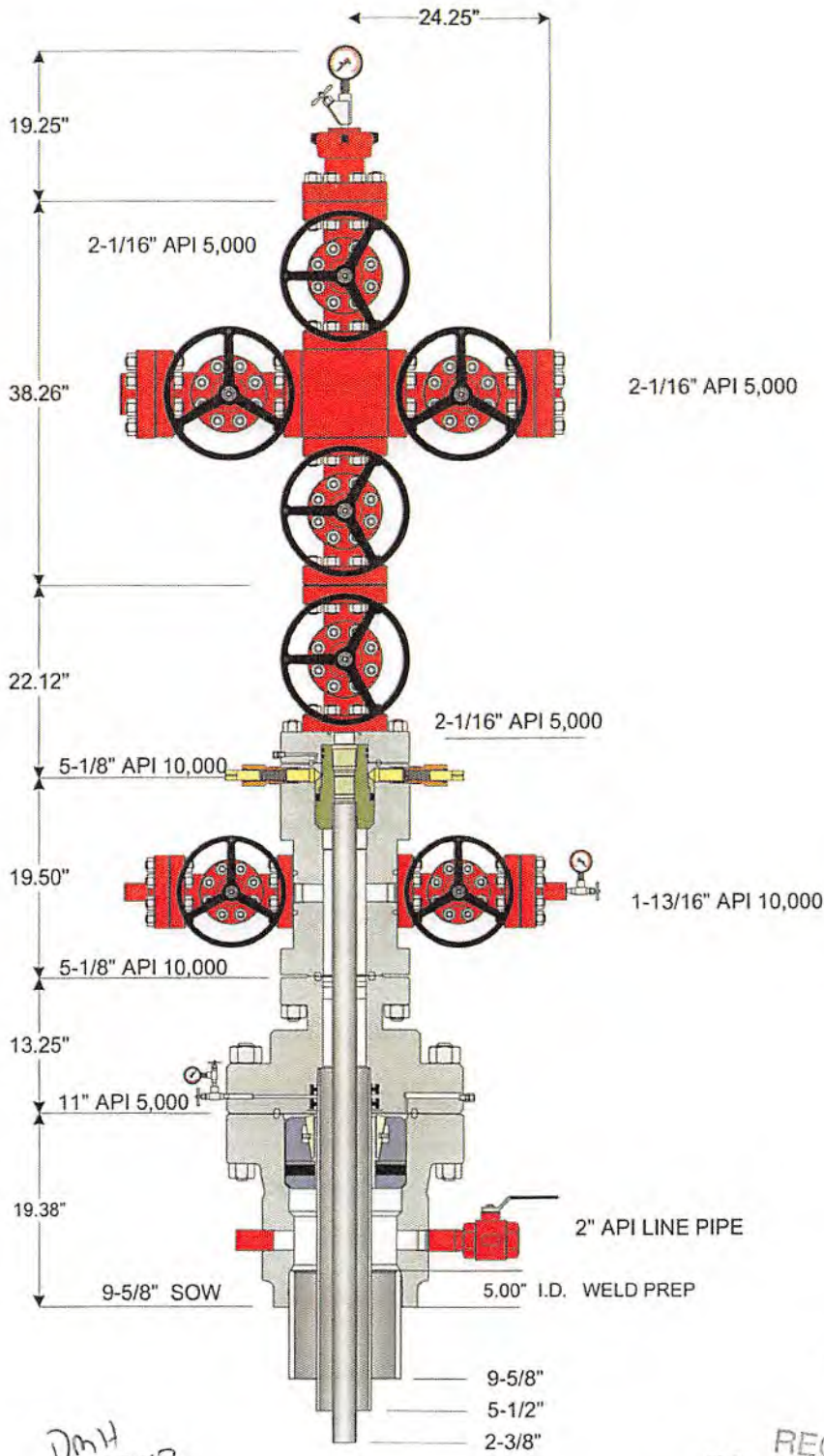
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NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THE DRAWING ARE ESTIMATED MEASUREMENTS AND FOR REFERENCE ONLY.



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Customer: STONE ENERGY	Project: 46705	Quote: 99565 v 3
Tender, Project or Well: 2011- 2012 CONVENTIONAL MARCELLUS	Date: 07-17-2011	Drawn By: RF

EQT Production Water plan

01/04/2019

Offsite disposals for Marcellus wells

CWS TRUCKING INC.

P.O. Box 391
Williamstown, WV 26187
740-516-3586
Noble County/Noble Township
Permit # 3390

LAD LIQUID ASSETS DISPOSAL INC.

226 Rankin Road
Washington, PA 15301
724-350-2760
724-222-6080
724-229-7034 fax
Ohio County/Wheeling
Permit # USEPA WV 0014

TRI COUNTY WASTE WATER MANAGEMENT, INC.

1487 Toms Run Road
Holbrook, PA 15341
724-627-7178 Plant
724-499-5647 Office
Greene County/Waynesburg
Permit # TC-1009

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

BROAD STREET ENERGY LLC

37 West Broad Street
Suite 1100
Columbus, Ohio 43215
740-516-5381
Washington County/Belpre Twp.
Permit # 8462

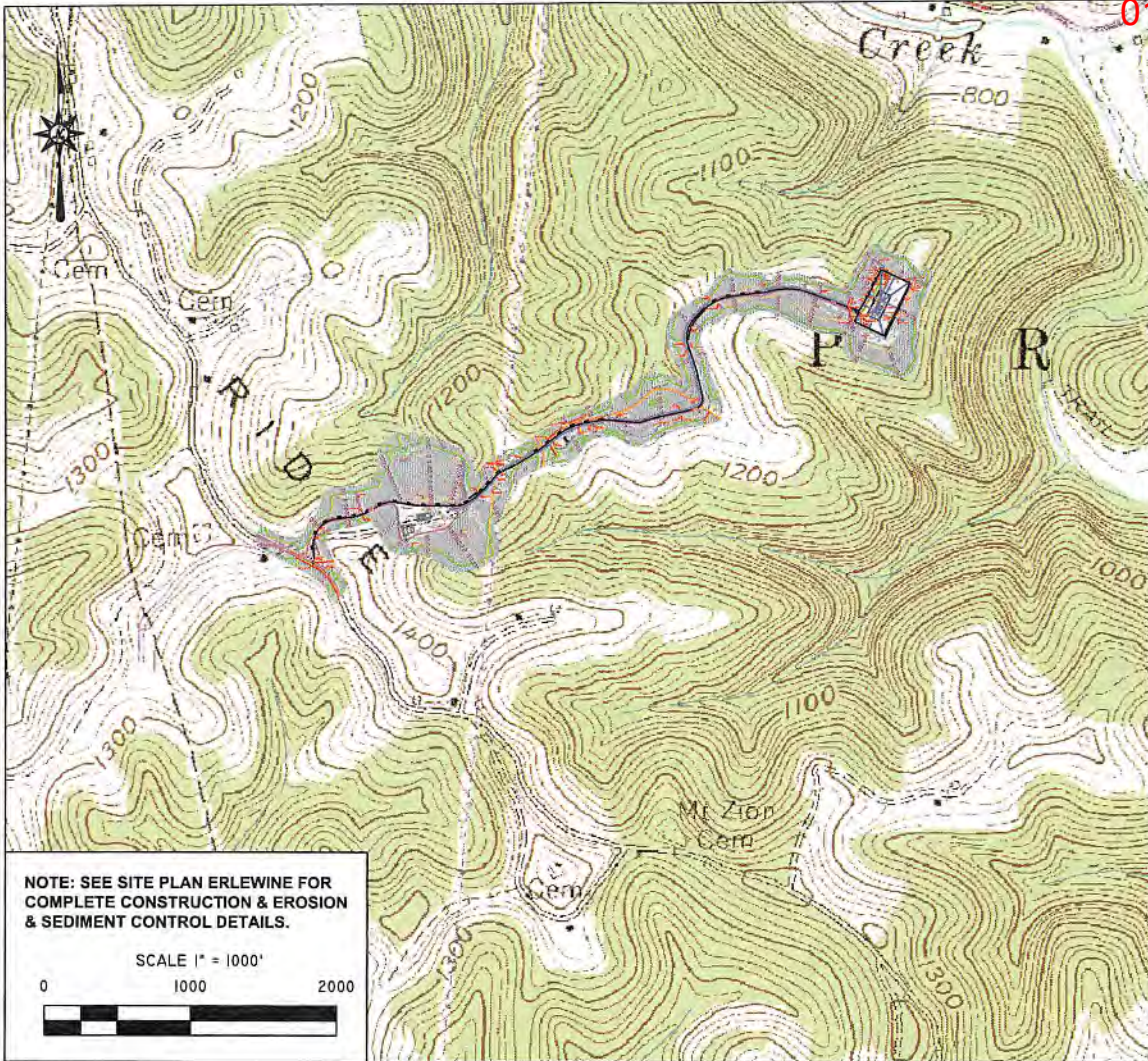
TRIAD ENERGY

P.O. Box 430
Reno, OH 45773
740-516-6021 Well
740-374-2940 Reno Office Jennifer
Nobel County/Jackson Township
Permit # 4037

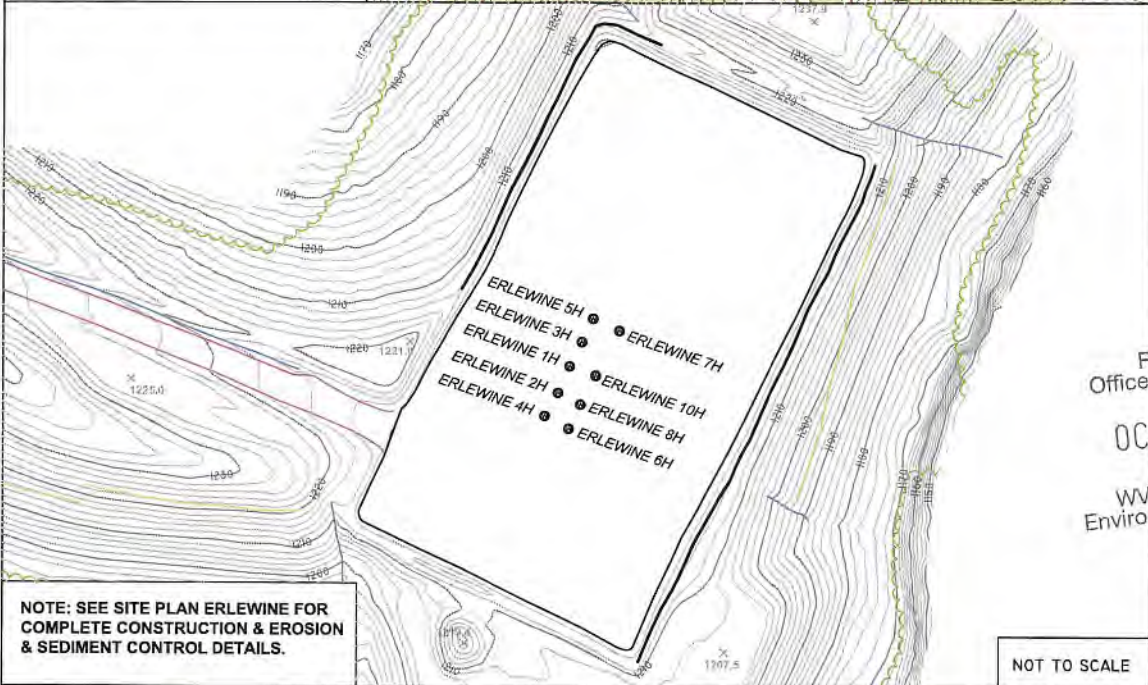
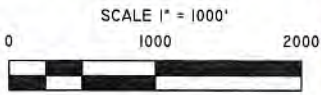
KING EXCAVATING CO.

Advanced Waste Services
101 River Park Drive
New Castle, Pa. 16101
Facility Permit# PAR000029132

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NOTE: SEE SITE PLAN ERLEWINE FOR COMPLETE CONSTRUCTION & EROSION & SEDIMENT CONTROL DETAILS.



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Blue Mountain Inc.
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

PREPARED FOR:
EQT Production Co. Inc.
115 Professional Place, P.O. Box 280
Bridgeport, WV 26330

FORM WW9

ERLEWINE WELL
TOPO SECTION OF NEW MARTINSVILLE 7.5'
USGS TOPO QUADRANGLE

JUNE 1, 2018



Where energy meets innovation.™

Site Specific Safety and Environmental Plan

EQT
Erlewine Pad
New Martinsville
Wetzel County, WV

Erlewine 8H For Wells: _____

Date Prepared: February 26, 2018

[Signature]
EQT Production

Regional Land Supervisor
Title

10-2-18
Date

[Signature]
WV Oil and Gas Inspector

Oil + Gas Inspector
Title

10-4-18
Date

Anticipated Frac Additives
Chemical Names and CAS numbers

01/04/2019

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
	Tributyl tetradecyl phosphonium	
Friction Reducer	chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7

DmH
10-4-18

01/04/2019

Topo Quad: NEW MARTINSVILLE, WV - OHIO 7.5'

Scale: 1" = 1000'

County: WETZEL

Date: 19 JULY 2018

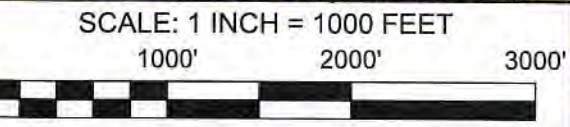
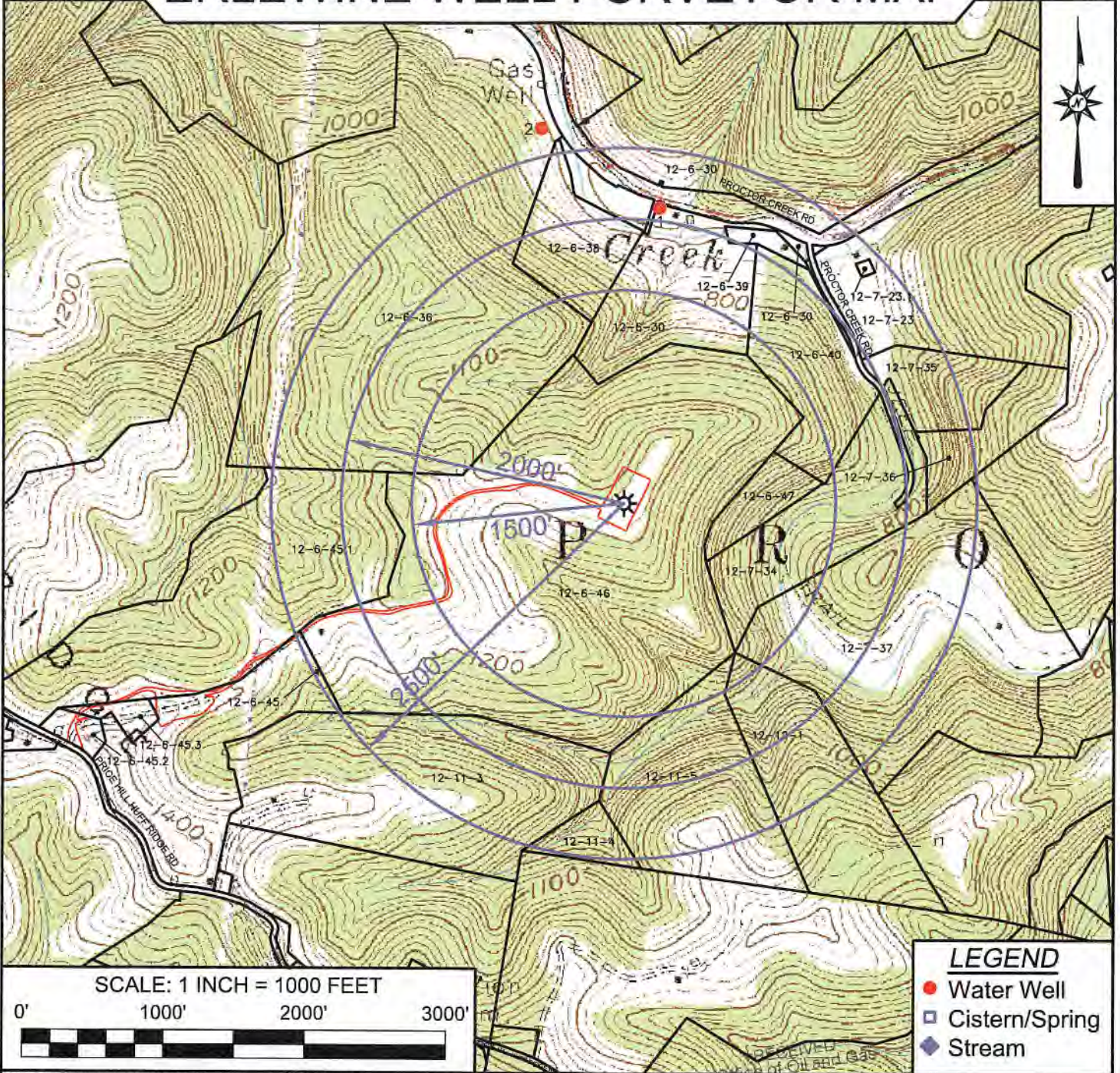
District: PROCTOR

Project No: 0493-17

Water

ERLEWINE WELL PURVEYOR MAP

Topo



- LEGEND**
- Water Well
 - Cistern/Spring
 - ◆ Stream

SURVEYING AND MAPPING SERVICES PERFORMED BY:

PREPARED FOR:

Blue Mountain
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

EQT Production Co. Inc.
EQT Plaza
625 Liberty Ave, Suite 1700
Pittsburgh, PA 15222

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Table 1 – Water Source Identification

EQT Well Pad Name: ERLEWINE

Submittal Date: 7-18-2018

EQT Well Number: ERLEWINE: 1H,2H, 3H, 4H, 5H, 6H, 7H, 8H, 10H

Survey / Engineering Company: BLUE MOUNTAIN INC.

Site Number: 1 Distance from Gas Well (feet): 2,052+/-

Surface Owner / Occupant: Albert Ray Anderson

Address: 100 N. Bridge St., Box 25, New Martinsville, WV 26155 Phone #: N/A

Field Located Date: 06-09-2017 Owner home during survey (yes/no): N/A

Coordinates: 39.689185° -80.796298° +/- decimal degrees – NAD 83

Contact Attempts (Date): 1st: 06-10-2017 2nd: N/A Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18; 2nd certified mailer returned undelivered

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 2 Distance from Gas Well (feet): 2,659+/-

Surface Owner / Occupant: Richard L. Earlewine

Address: Rt. 1 Box 72, Proctor, WV 26055 Phone #: N/A

Field Located Date: 06-09-2017 Owner home during survey (yes/no): N/A

Coordinates: 39.690677° -80.799289° (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 06-07-2017 2nd: 6-8-2018 Door Hanger Left: N/A

Comments: Certified mailer delivered 6-7-17; 2nd certified mailer delivered 6-8-18 yes to water testing.

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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Environmental Protection

Site Number: 3 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: David Michael Anderson

Address: 100 N Bridge St., Box 25, New Martinsville, WV 26155 Phone #: N/A

Field Located Date N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 06-10-2017 2nd: 6-5-2018 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-10-17; Certified mailer sent 6-5-18; 2nd certified mailer returned undelivered

- Landowner Requested Sampling
- Landowner Decline Sampling
- Unable to Contact
(Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 4 Distance from Gas Well (feet)N/A

Surface Owner / Occupant: David Michael Anderson

Address: 100 N Bridge St., Box 25, New Martinsville, WV 26155 Phone #: N/A

Field Located Date: N/A Owner home during survey (Yes/No):

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 06-09-2017 2nd: 6-10-17 Date Door Hanger Left: 06-09-17

Comments: Certified mailer sent 6-5-18; 3rd certified mailer returned undelivered

<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 5 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: David Michael Anderson

Address: 100 N Bridge St., Box 25, New Martinsville, WV 26155 Phone #: N/A

Field Located Date N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 06-10-2017 2nd: 6-5-2018 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18; 2nd certified mailer returned undelivered

<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 6 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Christy Leek & Mary Wilson Est

Address: 195 Pike St, New Martinsville, WV 26155 Phone #: N/A

Field Located Date N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 06-07-2017 2nd: 6-8-2018 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18, Delivered 6-8-18. Owner name change since first attempt sent.

<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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Site Number: 7 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Donald F. & Martha J. Arrick

Address: 17954 Energy Rd, Proctor, WV 26055 Cell Phone #: 304-780-9238

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 06-07-2017 2nd: 6-7-2018 Date Door Hanger Left: N/A

Comments: Certified 6-7-17; 2nd Certified mailer sent 6-5-18, was delivered on 6-7-18, spoke with Mr. Arrick 6-15-18 water well would like it tested. No house on property: Leave message if no answer: First call attempt to contact -left a voice mail on 6-26-18.

<input checked="" type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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Site Number: 8 Distance from Gas Well (feet): N/A
Surface Owner / Occupant: Kevin Goff

Address: PO Box 222, New Martinsville, WV 26155-0222 Phone #: 304-771-8800

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-20-2017 2nd: 6-11-2018 Date Door Hanger Left: N/A

Comments: Spoke with Mr. Goff 6-20-17. He stated he has 1 well. May not want water tested. Further phone calls unreturned. Certified mailer sent 6-5-18, was delivered on 6-11-18, 7-16-18 Returned letter stating doesn't Water tested.

<input type="checkbox"/> Landowner Requested Sampling
<input checked="" type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 9 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Kevin Goff

Address: PO Box 222, New Martinsville, WV 26155-0222 Phone #: 304-771-8800

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-20-17 2nd: 6-11-18 Date Door Hanger Left: N/A

Comments: Spoke with Mr. Goff 6-20-17. He stated he has 1 well. May not want water tested. Further phone calls unreturned. Certified mailer sent 6-5-18, was delivered on 6-11-18, 7-16-18 Returned letter stating doesn't Water tested.

<input type="checkbox"/> Landowner Requested Sampling
<input checked="" type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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Site Number: 10 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Rost Energy Company Inc.

Address: PO Box 615, Ligonier, PA 15658-0615 Phone #: N/A

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-6-17 2nd: 6-7-2018 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18, was delivered on 6-7-18

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<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 11 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Christy Leek & Mary Wilson Est

Address: 195 Pike St. New Martinsville, WV 26155 Phone #: N/A

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-6-17 2nd: 6-8-18 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18, was delivered on 6-8-18

<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Site Number: 12 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Emma L. & John J. Moore

Address: 2616 Huff Ridge Rd. New Martinsville, WV 26155 Phone #: N/A

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-7-17 2nd: 6-7-18 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18, was delivered on 6-7-18.

<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

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Site Number: 13 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Kevin Goff

Address: PO Box 222, New Martinsville, WV 26155 Phone #: 304-771-8800

Field Located Date: N/A Owner home during survey (Yes/No): N/A

Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-20-2017 2nd: 6-11-18 Date Door Hanger Left: N/A

Comments: Spoke with Mr. Goff 6-20-17. He stated he has 1 well. May not want water tested. Further phone calls unreturned. Certified mailer sent 6-5-18, was delivered on 6-11-18, 7-16-18 Returned letter stating doesnt Water tested.

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<input type="checkbox"/> Landowner Requested Sampling
<input checked="" type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact <small>(Further contact attempts to be made by EQT's third party pre-drill sampling lab)</small>

Site Number: 14 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: Linda Anderson

Address: 2641 Huff RDG New Martinsville, WV 26155 Phone #: N/A

Field Located Date: N/A Owner home during survey (Yes/No): N/A
Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-8-17 2nd: 6-8-18 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18, was delivered on 6-8-18

<input type="checkbox"/> Landowner Requested Sampling
<input type="checkbox"/> Landowner Decline Sampling
<input checked="" type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

Site Number: 15 Distance from Gas Well (feet): N/A

Surface Owner / Occupant: EQT Production Company

Address: EQT Plaza, 625 Liberty Ave, Suite 1700, Pittsburgh PA 15222 Phone #: N/A

Field Located Date: N/A Owner home during survey (Yes/No): N/A
Coordinates: N/A (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 6-8-17 2nd: 6-12-18 Date Door Hanger Left: N/A

Comments: Certified mailer sent 6-5-18, was delivered on 6-12-18. Stone Energy returned letter stating letter needs sent to EQT. 3rd attempt sent 7-12-18.

<input type="checkbox"/> Landowner Requested Sampling
<input checked="" type="checkbox"/> Landowner Decline Sampling
<input type="checkbox"/> Unable to Contact (Further contact attempts to be made by EQT's third party pre-drill sampling lab)

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Environmental Protection

Parcel 01/04/2019
12-6-47



To Whom It May Concern:

BLUE MOUNTAIN has been contracted by EQT Production Company (EQT) to do some preliminary work for a proposed oil and gas well permit application.

In accordance with West Virginia Code 35-8-15, the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas, requires gas well operators to offer pre-drill water testing for existing water wells or developed springs actually used by the surface owner or water purveyor for consumption by humans or domestic animals, which are located within 1,500 feet of the proposed gas well pad. Please note that the WVDEP requires this water testing offer to a radius of 1,500 feet; however it is EQT's standard practice to conduct the water testing to a radius of 2,500 feet from the proposed gas well pad location.

EQT hereby notifies you (the surface owner and/or water purveyor) of the following:

- Your right to request sampling and analysis;
- The rebuttable presumption for contamination or deprivation of a fresh water source or supply;
- That refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability;
- Your independent right to sample and analyze any water supply at your own expense;
- That EQT will utilize an independent laboratory to analyze any sample;
- That you can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Therefore, EQT offers, at no charge to you, water testing of your water supply(s). Results of these tests will be sent to you upon our receipt from the independent testing laboratory.

Please notify BLUE MOUNTAIN at your earliest convenience if you are interested in having your potable water tested. Please have this letter with you at the time of contact so that the well number may be referenced.

Thank you for your cooperation in this matter.

BLUE MOUNTAIN
11023 Mason Dixon Highway
Burton, WV 26562
Ph: (304) 662-6486

Date: 6-5-2018

Left/sent by: BLUE MOUNTAIN

EQT Well Number: ERLEWINE: 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 10H

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Office of Oil and Gas
OCT - 9 2018
WV Department of
Environmental Protection

*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your water well, spring, or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Name (please print): KEVIN GUFF Address: 2393 ERIC FIC RD
6-11-18 MADISON AVE, WV
Signature: [Signature] Date: 6-11-18 20145

01/04/2019

Parcel
12-7-34



To Whom It May Concern:

BLUE MOUNTAIN INC. has been contracted by EQT Production Company (EQT) to do some preliminary work for a proposed oil and gas well permit application.

In accordance with West Virginia Code 35-8-15, the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas, requires gas well operators to offer pre-drill water testing for existing water wells or developed springs actually used by the surface owner or water purveyor for consumption by humans or domestic animals, which are located within 1,500 feet of the proposed gas well pad. Please note that the WVDEP requires this water testing offer to a radius of 1,500 feet; however it is EQT's standard practice to conduct the water testing to a radius of 2,500 feet from the proposed gas well pad location.

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BLUE MOUNTAIN INC.
11023 Mason Dixon Highway
Burton, WV 26562
Ph: (304) 662-6486

Date: 6-5-2017

Left/sent by: BLUE MOUNTAIN INC.

EQT Well Number: ERLEWINE: 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H,

10H

*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your water well, spring, or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Name (please print): _____ Address: _____

Signature: [Signature] Date: 6-12-17

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Office of Oil and Gas

OCT - 9 2018

WV Department of
Environmental Protection

01/04/2019

Parcel
12-12-1



To Whom It May Concern:

BLUE MOUNTAIN has been contracted by EQT Production Company (EQT) to do some preliminary work for a proposed oil and gas well permit application.

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BLUE MOUNTAIN
11023 Mason Dixon Highway
Burton, WV 26562
Ph: (304) 662-6486

Date: 6-5-2018

Left/sent by: BLUE MOUNTAIN

EQT Well Number: ERLEWINE: 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 10H

*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

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WV Department of
Environmental Protection

If you do not feel the need to have your water well, spring, or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Name (please print): _____ Address: _____

Signature: [Handwritten Signature] Date: 6-18-18



01/04/2019

To Whom It May Concern:

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BLUE MOUNTAIN
11023 Mason Dixon Highway
Burton, WV 26562
Ph: (304) 662-6486

Date:

Left/sent by: BLUE MOUNTAIN

EQT Well Number: ERLEWINE: 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 10H

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Environmental Protection

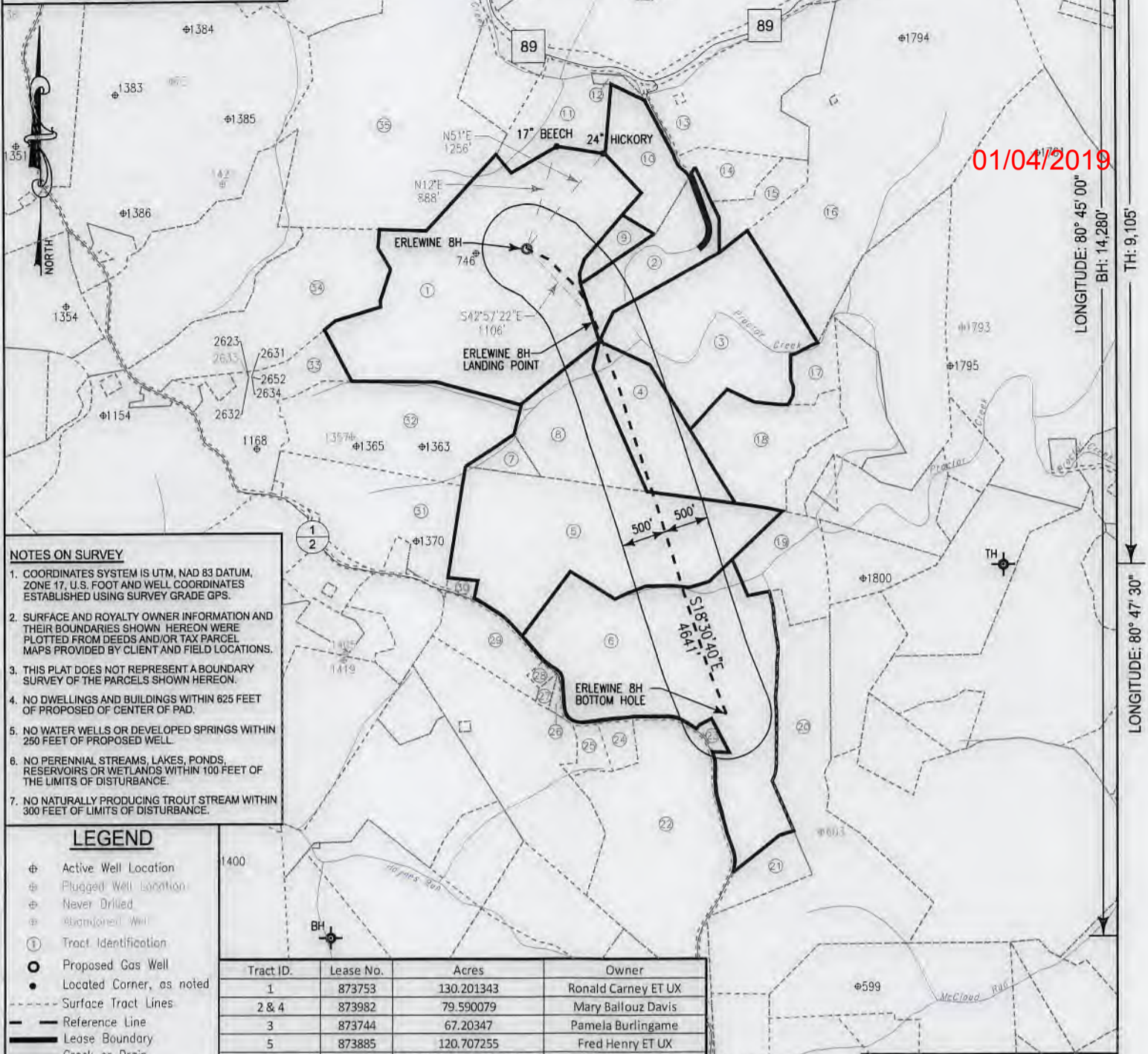
*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your water well, spring, or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Name (please print): Jason Ranson- Director of Drilling, Land Address: EQT Plaza, 625 Liberty Ave, Suite 1700 Pittsburgh PA 15222

Signature:  Date: 7-27-18

**ERLEWINE 8H
ERLEWINE
EQT Production Company**



NOTES ON SURVEY

1. COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
5. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
6. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
7. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

LEGEND

- ⊕ Active Well Location
- ⊕ Plugged Well Location
- ⊕ Never Drilled
- ⊕ Abandoned Well
- ① Tract Identification
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- Ⓢ WV County Route
- Ⓡ WV State Route

Tract ID.	Lease No.	Acres	Owner
1	873753	130.201343	Ronald Carney ET UX
2 & 4	873982	79.590079	Mary Ballouz Davis
3	873744	67.20347	Pamela Burlingame
5	873885	120.707255	Fred Henry ET UX
6	1018034	113.088312 OR 119.119596	Marilyn S. Hart

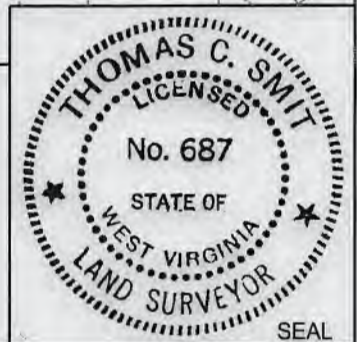
(⊕) Denotes Location of Well on United States Topographic Maps



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 Environmental Protection.

Thomas C. Smalls

L. L. S. 687



FILE NO: W2192 (BK 65-61)
DRAWING NO:
SCALE: 1"=1600'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: DECEMBER 11 20 18
OPERATORS WELL NO: ERLEWINE 8H
API WELL NO
47 - 103 - 02954
STATE COUNTY PERMIT

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

LOCATION ELEVATION: 1,220' WATERSHED: TRIBUTARY OF PROCTOR CREEK QUADRANGLE: NEW MARTINSVILLE 7.5'
DISTRICT: Proctor COUNTY: Wetzel

SURFACE OWNER: Richard Erlewine ACREAGE: 135 ±
ROYALTY OWNER: Ronald Carney, et ux LEASE NO: 873753 ACREAGE: 130.20 ±

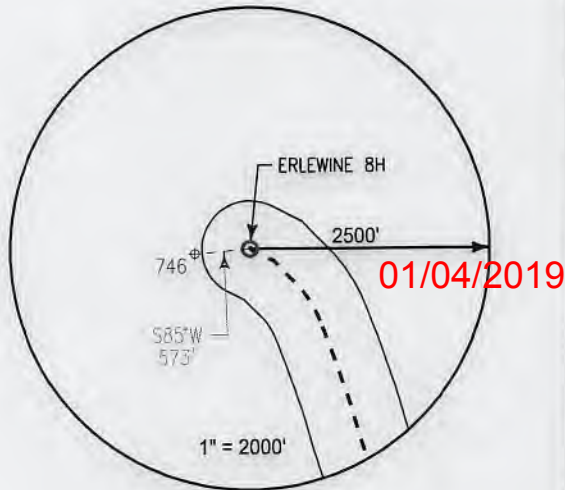
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,840'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280
Bridgeport, WV 26330 Bridgeport, WV 26330

Erlewine 8H
Erlewine
EQT Production Company

Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	6	46	Wetzel	Proctor	Richard L. Erlewine	136.18
2	7	34	Wetzel	Proctor	Kevin Goff	23.31
3	7	37	Wetzel	Proctor	Rost Energy Company	64.56
4	12	1	Wetzel	Proctor	Kevin Goff	28.69
5	11	12	Wetzel	Proctor	Emma Louise Wilson	89.99
6	12	27.1	Wetzel	Proctor	Sharon Henthorn	110.05
7	11	4	Wetzel	Proctor	Emma Louise Wilson	4.24
8	11	5	Wetzel	Proctor	Emma L. & John J. Moore	30.34
9	6	47	Wetzel	Proctor	Victor Richard Reed ET AL	5.55
10	6	40	Wetzel	Proctor	Kevin S. Goff	19.13
11	6	30	Wetzel	Proctor	Albert Ray Anderson	102.63
12	6	39	Wetzel	Proctor	Ethyl Anderson EST	1.42
13	7	23	Wetzel	Proctor	Clegg Family Irrevocable Trust	47.68
14	7	35	Wetzel	Proctor	Clegg Family Irrevocable Trust	9.94
15	7	36	Wetzel	Proctor	Clegg Family Irrevocable Trust	9.8
16	7	24	Wetzel	Proctor	Minervar & Evans Lane C	164.2
17	7	38	Wetzel	Proctor	Rost Energy Company	7.96
18	12	2	Wetzel	Proctor	Emma L. & John J. Moore	31.57
19	12	14	Wetzel	Proctor	Rost Energy Company	20.65
20	12	28	Wetzel	Proctor	Freeman J. & David J. Miller	90.96
21	12	44.2	Wetzel	Proctor	Roger J. Powell	10.27
22	12	44	Wetzel	Proctor	Charles G. Shepard	72.43
23	12	27	Wetzel	Proctor	Sharon Henthorne	1.45
24	11	25.2	Wetzel	Proctor	AM Smith ER & SJ Headley	4.1
25	11	25.3	Wetzel	Proctor	Joyce A. Meeden	4.3
26	11	N/A	Wetzel	Proctor	N/A	0.86
27	11	28	Wetzel	Proctor	John A. Helmick	1.07
28	11	20.1	Wetzel	Proctor	Debra Lynn Oates	1.06
29	11	20	Wetzel	Proctor	John A. Helmick	15.26
30	11	9	Wetzel	Proctor	Emily D. Wilson	1.18
31	11	11	Wetzel	Proctor	Christy Leek	41.66
32	11	3	Wetzel	Proctor	Wilson Mary & Christy Leek EST	52.33
33	6	45	Wetzel	Proctor	Christy Leek	29.51
34	6	45.1	Wetzel	Proctor	Donald F. & Martha J. Arrick	53.9
35	6	36	Wetzel	Proctor	Richard L. Erlewine	127.14



Notes:
ERLEWINE 8H As-Built coordinates are
 NAD 27 N: 433,648.000 E: 1,634,887.000
 NAD 27 Lat: 39.683375 Long: -80.797332
 NAD 83 UTM N: 4,392,644.145 E: 517,394.965

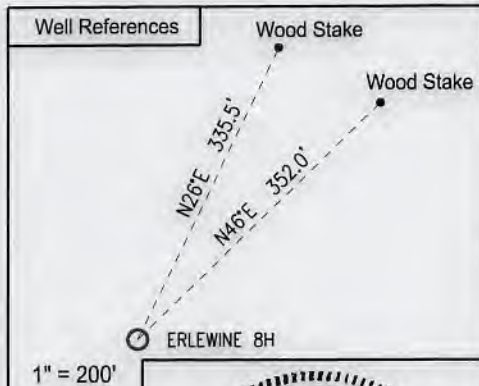
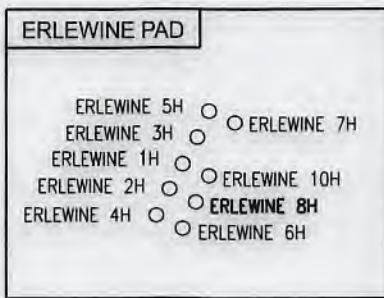
ERLEWINE 8H As-Built Landing Point coordinates are
 NAD 27 N: 432,838.200 E: 1,635,641.000
 NAD 27 Lat: 39.681181 Long: -80.794612
 NAD 83 UTM N: 4,392,401.275 E: 517,628.790

ERLEWINE 8H As-Built Bottom Hole coordinates are
 NAD 27 N: 428,439.100 E: 1,637,114.000
 NAD 27 Lat: 39.669163 Long: -80.789155
 NAD 83 UTM N: 4,391,068.561 E: 518,099.885

West Virginia Coordinates system of 1927 (North Zone)
 based upon Differential GPS Measurements
 Plat orientation, Corner and well ties are based upon
 the grid north meridian
 Well location references are based upon the grid north
 meridian.
 UTM coordinates are NAD83, Zone 17, Meters.

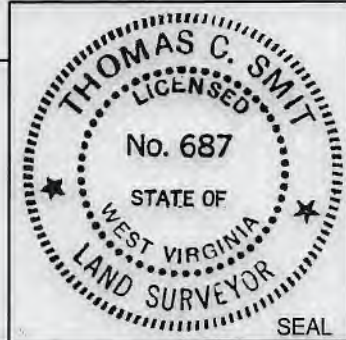
LEGEND

- ⊕ Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - - - Reference Line
- ▬ Lease Boundary
- ~ Creek or Drain
- ⊙ WV County Route
- ⊠ WV State Route



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 Environmental Protection.

L. L. S.
 L. L. S. 687



FILE NO: W2192 (BK 65-61)
 DRAWING NO: _____
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY:
 1:2500
 PROVEN SOURCE OF ELEVATION:
 NGS CORS Station

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

DATE: DECEMBER 11 20 18
 OPERATORS WELL NO: ERLEWINE 8H
 API WELL NO
 47 - 103 - 02954
 STATE COUNTY PERMIT

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

LOCATION ELEVATION: _____ WATERSHED: TRIBUTARY OF PROCTOR CREEK QUADRANGLE: NEW MARTINSVILLE 7.5'
 DISTRICT: Proctor COUNTY: Wetzel

SURFACE OWNER: Richard Erlewine ACREAGE: 135 ±
 ROYALTY OWNER: Ronald Carney, et ux LEASE NO: 873753 ACREAGE: 130.20 ±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,840'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280
 Bridgeport, WV 26330 Bridgeport, WV 26330

AS-BUILT

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached				

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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Office of Oil and Gas
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WV Department of
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The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: EQT Production Company
 By: Erin Spine
 Its: Regional Land Supervisor

WW-6A1 attachment

Operator's Well No.

Erlewine 8H

<u>Lease No.</u>	<u>Grantor, Lessor, etc.</u>	<u>Grantee, Lessee, etc.</u>	<u>Royalty</u>	<u>Book/Page</u>
<u>873753</u>	<u>Ronald Carney, et ux, et al (current royalty owner)</u>		**	
	Richard L. Erlewine (original lessor)	Stone Energy Corporation		134A/131
	Stone Energy Corporation	EQT Production Company		183A/305
<u>873982</u>	Robert L. Anderson (original lessor)	Stone Energy Corporation		145A/898
	Stone Energy Corporation	EQT Production Company		183A/305
			**	
<u>873744</u>	Pamela Burlingame (original lessor)	Stone Energy Corporation		126A/341
	Stone Energy Corporation	EQT Production Company		183A/305
			**	
<u>873982</u>	Robert L. Anderson (original lessor)	Stone Energy Corporation		145A/898
	Stone Energy Corporation	EQT Production Company		183A/305
			**	
<u>873885</u>	<u>Fred Henry, et al (current royalty owner)</u>		**	
	Fred Henry (original lessor)	Stone Energy Corporation		132A/392
	Stone Energy Corporation	EQT Production Company		183A/305
<u>1018034</u>	Marilyn S Hart, et al	Stone Energy Corporation	**	119A/347
	Stone Energy Corporation	EQT Production Company		183A/305

** Per West Virginia Code Section 22-6-8.

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WW-6A1 (Attachment)

Operator's Well Number: Erlewine #8H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page	Map/Parcel	Code
Ronald Carney, et ux	Stone Energy Corporation	1/8	123A/459	12-6-46	A
Ralph Douglas Huff, et ux	Stone Energy Corporation	1/8	123A/461	12-6-46	A
Nita L. Adkins, et vir	Stone Energy Corporation	1/8	123A/463	12-6-46	A
Judy Donato	Stone Energy Corporation	1/8	123A/467	12-6-46	A
Charlene Wade, et vir	Stone Energy Corporation	1/8	123A/471	12-6-46	A
Doreen Judge	Stone Energy Corporation	1/8	123A/473	12-6-46	A
Gerald Judge	Stone Energy Corporation	1/8	123A/475	12-6-46	A
Chesapeake	Stone Energy Corporation	1/8	350/1	12-6-46	A
Joyce Ellen Weltz	Stone Energy Corporation	1/8	123A/465	12-6-46	A
Rebecca J. Lough	Stone Energy Corporation	1/8	123A/469	12-6-46	A
Thomas E Miller	Stone Energy Corporation	1/8	132A/366	12-6-46	A
Shiben	Stone Energy Corporation	1/8	294/442	12-6-47	B
Chesapeake	Stone Energy Corporation	1/8	411/733	12-6-47	B
Seigler Family Trust	Stone Energy Corporation	1/8	57/324	12-6-47	B
Mary Davis Ballouz	Stone Energy Corporation	1/8	341/25	12-6-47	B
Deborah Rein	Stone Energy Corporation	1/8	57/324	12-6-47	B
Rosalyn A Metzger	Stone Energy Corporation	1/8	57/324	12-6-47	B
Shiben	Stone Energy Corporation	1/8	294/442	12-12-1	D
Chesapeake	Stone Energy Corporation	1/8	411/733	12-12-1	D
Seigler Family Trust	Stone Energy Corporation	1/8	57/324	12-12-1	D
Mary Davis Ballouz	Stone Energy Corporation	1/8	341/25	12-12-1	D
Deborah Rein	Stone Energy Corporation	1/8	57/324	12-12-1	D
Rosalyn A Metzger	Stone Energy Corporation	1/8	57/324	12-12-1	D
Fred Henry et ux	Stone Energy Corporation	1/8	132A/392	12-11-12	E
Bayer Materials Science LLC	Stone Energy Corporation	1/8	127A/713	12-11-12	E
Ralph Douglas Huff	Stone Energy Corporation	1/8	139A/892	12-11-12	E
Joyce Ellen Weltz	Stone Energy Corporation	1/8	123A/465	12-11-12	E
Brian R. Hoskins	Stone Energy Corporation	1/8	139A/602	12-11-12	E
Richard Highland Smith	Stone Energy Corporation	1/8	135A/409	12-11-12	E
Dwight Stanley Smith	Stone Energy Corporation	1/8	135A/425	12-11-12	E
Alan Lee Smith	Stone Energy Corporation	1/8	137A/206	12-11-12	E
Judith A Krueger	Stone Energy Corporation	1/8	306/347	12-11-12	E

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Well Operator Stone Energy Corporation

By 
Title Land Coordinator

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OCT 07 2013

WV Department of
Environmental Protection

WW-6A1 (Attachment)

Operator's Well Number: Erlewine #8H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page	Map/Parcel	Code
Alberta Nichols	Stone Energy Corporation	1/8	137A/212	12-11-12	E
Florence E Straub	Stone Energy Corporation	1/8	135A/393	12-11-12	E
Gladys V. Anthony	Stone Energy Corporation	1/8	137A/222	12-11-12	E
Emma J Rufener	Stone Energy Corporation	1/8	137A/374	12-11-12	E
Dale J Huggins	Stone Energy Corporation	1/8	137A/216	12-11-12	E
Rhonda Lynn White	Stone Energy Corporation	1/8	137A/218	12-11-12	E
Mark Scott Hoskins	Stone Energy Corporation	1/8	137A/220	12-11-12	E
Beverly Kay Campbell	Stone Energy Corporation	1/8	119A/351	12-12-27.1	F
BRC App Minerals	Stone Energy Corporation	1/8	102A/505	12-12-27.1	F
Wanda R. Springston	Stone Energy Corporation	1/8	119A/353	12-12-27.1	F
Joyce Meeden	Stone Energy Corporation	1/8	40/9	12-12-27.1	F
Marilyn S. Hart	Stone Energy Corporation	1/8	119A/347	12-12-27.1	F
Janet Lea Reeves	Stone Energy Corporation	1/8	119A/349	12-12-27.1	F
Highland Richard Smith	Stone Energy Corporation	1/8	135A/409	12-11-5	C
Stanley Dwight Smith	Stone Energy Corporation	1/8	135A/425	12-11-5	C
Alan Lee Smith	Stone Energy Corporation	1/8	137A/206	12-11-5	C
Gladys V Anthony	Stone Energy Corporation	1/8	137A/222	12-11-5	C
Florence E Staub	Stone Energy Corporation	1/8	135A/393	12-11-5	C
Emma J Rufener	Stone Energy Corporation	1/8	137A/374	12-11-5	C
Ralph D Huff	Stone Energy Corporation	1/8	139A/892	12-11-5	C
Joyce Ellen Cokeley (Weltz)	Stone Energy Corporation	1/8	123A/465	12-11-5	C
Dale Huggins	Stone Energy Corporation	1/8	137A/216	12-11-5	C
Rhonda L White	Stone Energy Corporation	1/8	137A/218	12-11-5	C
Brain Hoskins	Stone Energy Corporation	1/8	139A/602	12-11-5	C
Craig Hoskins	Stone Energy Corporation	1/8	137A/222	12-11-5	C
Mark S Hoskins	Stone Energy Corporation	1/8	137A/220	12-11-5	C
Alberta R Nichols	Stone Energy Corporation	1/8	137A/212	12-11-5	C

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that -

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Well Operator Stone Energy Corporation

By
Title Land Coordinator

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WV Department of
Environmental Protection

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Office of Oil and Gas

OCT 9 7 33
WV Department of
Environmental Protection



01/04/2019

September 26, 2018

Mr. Taylor Brewer
West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304

Re: Erlewine well pad, well numbers Erlewine 8H and Erlewine 10H
Proctor District, Wetzel County

Dear Mr. Brewer,

EQT Production Company is submitting an application for a new well work permit for the above well number. Upon information and belief, Operator's lease and/ or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including under any public roads that the well lateral crosses.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Erin Spine'.

Erin Spine
Regional Land Supervisor

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Office of Oil and Gas
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WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 10-2-18

API No. 47- 103 - 02954
Operator's Well No. Erlewine 8H
Well Pad Name: Erlewine

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>WV</u>	UTM NAD 83	Easting: <u>517,395</u>
County: <u>Wetzel</u>		Northing: <u>4,392,644</u>
District: <u>Proctor</u>	Public Road Access: <u>Wetzel County Route 1/2</u>	
Quadrangle: <u>New Martinsville</u>	Generally used farm name: <u>Richard Erlewine</u>	
Watershed: <u>Tributary of Proctor Creek</u>		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p style="text-align: center;">OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
---	---


Required Attachments:

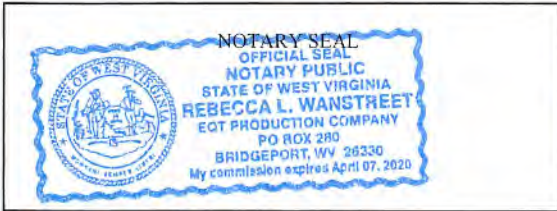
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

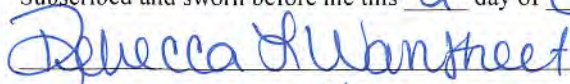
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Department of Environmental Protection

Certification of Notice is hereby given:

THEREFORE, I _____, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, 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 and imprisonment.

Well Operator:	EQT Production Company	Address:	2400 Ansys Drive Suite 200 Canonsburg PA 15317
By:	Erin Spine 		
Its:	Regional Land Supervisor	Facsimile:	304-848-0041
Telephone:	304-848-0035	Email:	espine@eqt.com



Subscribed and sworn before me this 2 day of October 2018.
 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 telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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01/04/2019

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application.

Date of Notice: 10/3/18 Date Permit Application Filed: 10/3/18

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
Name: See Attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: See Attached
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: See Attached
Address: _____

COAL OWNER OR LESSEE
Name: See Attached
Address: _____

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: See Attached
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

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WV Department of
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Surface Owner:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Surface Owner Access Road:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

Emily Diane Wilson
3453 Huff Ridge Road
New Martinsville, WV 26155

Linda Stoneking
6139 American Ridge Road
New Martinsville, WV 26155

Christy (Leek) Wilson
2997 Huff Ridge Road
New Martinsville, WV 26155

Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

EQT Production Company
625 Liberty Ave, Suite 1700
Pittsburgh PA 15222

Surface Owner Pits/ Impoundment/Potential AST Site

01/04/2019

4710302954

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

Emily Diane Wilson
3453 Huff Ridge Road
New Martinsville, WV 26155

Linda Stoneking
6139 American Ridge Road
New Martinsville, WV 26155

Christy Leek (Leek) Wilson
2997 Huff Ridge Road
New Martinsville, WV 26155

Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

Coal Owners:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

CNX RCPC LLC
1000 Consol Energy Dr
Canonsburg PA 15317

Water Purveyors:

N/A

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Office of Oil and Gas

OCT - 9 2018

WV Department of
Environmental Protection

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WV Department of
Environmental Protection

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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WW-6A
(8-13)

API NO. 47- 103 - 02954
OPERATOR WELL NO. Erlewine 81 **01/04/2019**
Well Pad Name: Erlewine

Notice is hereby given by:

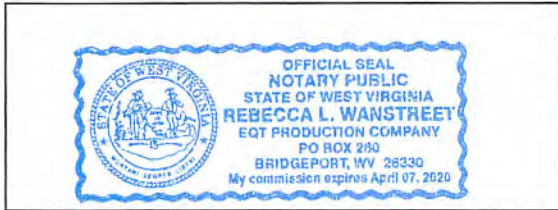
Well Operator: EQT Production Company
Telephone: 304-848-0035
Email: espine@eqt.com



Address: 2400 Ansys Drive Suite 200 Canonsburg PA 15317
Facsimile: 304-848-0041

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



Subscribed and sworn before me this 2 day of October 2018.
Rebecca L Wanstreet Notary Public
My Commission Expires 4-7-2020

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Topo Quad: NEW MARTINSVILLE, WV - OHIO 7.5'

Scale: 1" = 1000'

County: WETZEL

Date: 19 JULY 2018

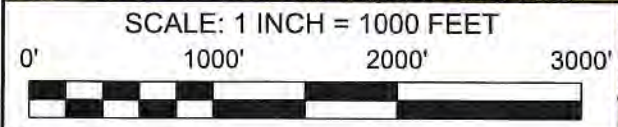
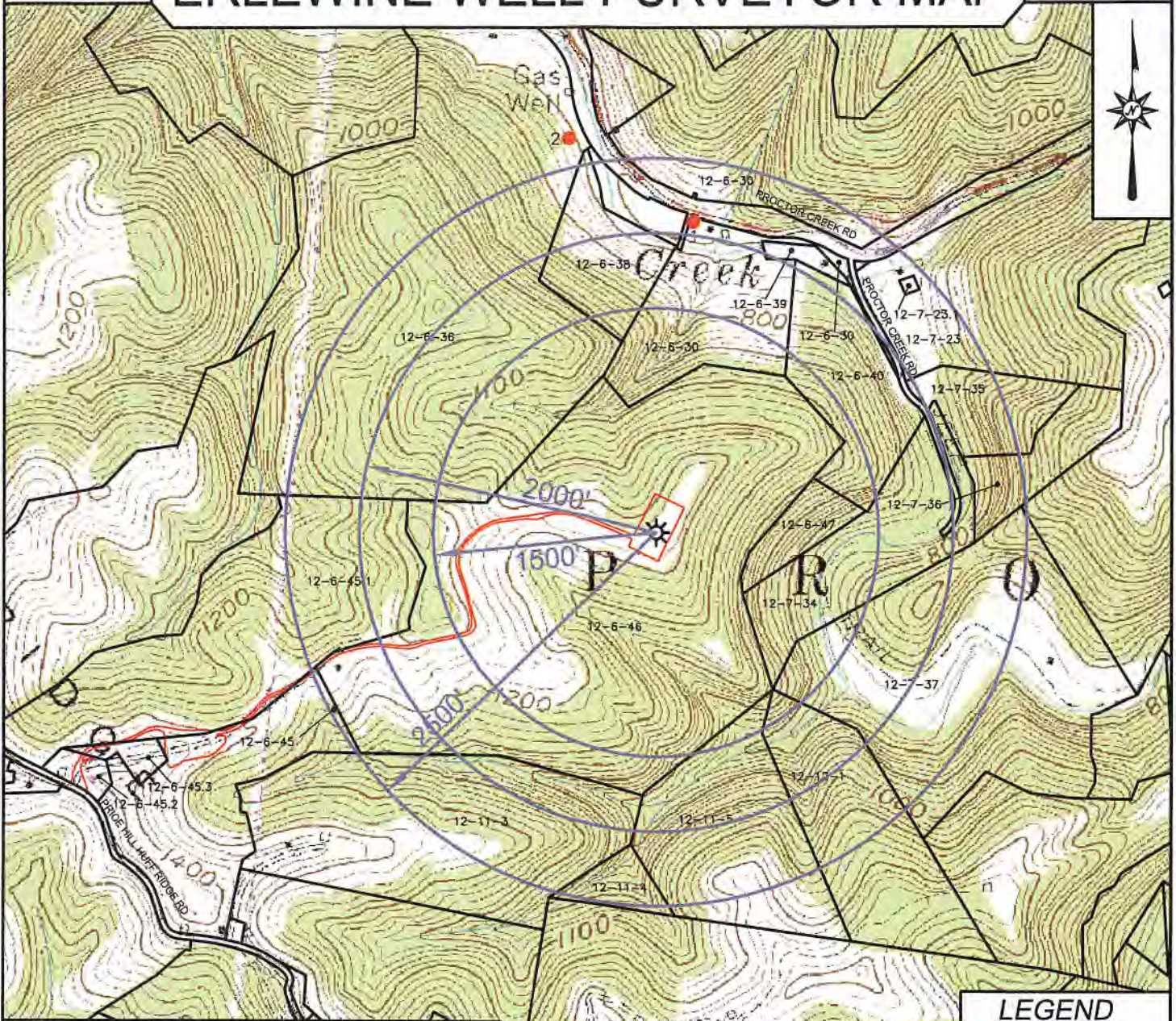
District: PROCTOR

Project No: 0493-17

Water

ERLEWINE WELL PURVEYOR MAP

Topo



- LEGEND**
- Water Well
 - Cistern/Spring
 - ◆ Stream

SURVEYING AND MAPPING SERVICES PERFORMED BY:

Blue Mountain
11023 MASON DIXON HIGHWAY
BURTON, WV 26562
PHONE: (304) 662-6486

PREPARED FOR:

EQT Production Co. Inc. OCT - 9 2018
EQT Plaza
625 Liberty Ave, Suite 1700
Pittsburgh, PA 15222

WV Department of Environmental Protection

Surface Owner:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Surface Owner Access Road:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

Emily Diane Wilson
3453 Huff Ridge Road
New Martinsville, WV 26155

Linda Stoneking
6139 American Ridge Road
New Martinsville, WV 26155

Christy (Leek) Wilson
2997 Huff Ridge Road
New Martinsville, WV 26155

Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

EQT Production Company
625 Liberty Ave, Suite 1700
Pittsburgh PA 15222

Surface Owner Pits/ Impoundment/Potential AS7 Site

01/04/2019

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

Emily Diane Wilson
3453 Huff Ridge Road
New Martinsville, WV 26155

Linda Stoneking
6139 American Ridge Road
New Martinsville, WV 26155

Christy Leek (Leek) Wilson
2997 Huff Ridge Road
New Martinsville, WV 26155

Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

Coal Owners:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

CNX RCPC LLC
1000 Consol Energy Dr
Canonsburg PA 15317

Water Purveyors:

N/A

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WV Department of
Environmental Protection

01/04/2019

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.


VOLUNTARY STATEMENT OF NO OBJECTION

I, EQT Production Company, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83 Easting:	<u>517,395</u>	<u>RECEIVED</u> <u>Office of Oil and Gas</u>
County:	<u>Wetzel</u>	UTM NAD 83 Northing:	<u>4,392,644</u>	
District:	<u>Proctor</u>	Public Road Access:	<u>Wetzel County Route 1/2</u>	<u>OCT - 9 2018</u>
Quadrangle:	<u>New Martinsville</u>	Generally used farm name:	<u>Richard Erlewine</u>	
Watershed:	<u>Tributary of Proctor Creek</u>			

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

WV Department of Environmental Protection

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>EQT Production Company</u></p> <p>By: <u>Todd Klaner</u></p> <p>Its: <u>Regional Land Manager</u></p> <p>Signature: </p> <p>Date: <u>10/03/2018</u></p>
--	---

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.

Date of Notice: 09/15/2018 **Date Permit Application Filed:** 09/25/2018

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

- HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

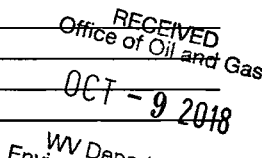
Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: <u>See Attached</u>	Name: <u>See Attached</u>
Address: _____	Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>WV</u>	UTM NAD 83 Easting: <u>517,395</u>	
County: <u>Wetzel</u>	Northing: <u>4,392,644</u>	
District: <u>Proctor</u>	Public Road Access: <u>Wetzel County Route 1/2</u>	
Quadrangle: <u>New Martinsville</u>	Generally used farm name: <u>Richard Erlewine</u>	
Watershed: <u>Tributary of Proctor Creek</u>		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: <u>EQT Production Company</u>	Authorized Representative: <u>Erin Spine</u>
Address: <u>2400 Ansys Drive Suite 200 Canonsburg PA 15317</u>	Address: <u>2400 Ansys Drive Suite 200 Canonsburg PA 15317</u>
Telephone: <u>304-848-0035</u>	Telephone: <u>304-848-0035</u>
Email: <u>espine@eqt.com</u>	Email: <u>espine@eqt.com</u>
Facsimile: <u>304-848-0041</u>	Facsimile: <u>304-848-0041</u>

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Surface Owner:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Surface Owner Access Road:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

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Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

EQT Production Company
625 Liberty Ave, Suite 1700
Pittsburgh PA 15222

Surface Owner Pits/ Impoundment/Potential Asst One 01/04/2019

RICHARD L ERLEWINE
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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF INTENT TO DRILL
WAIVER

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Surface Owner Waiver:

I, EQT Production Company, hereby state that I have read the notice provisions listed above and hereby waive the notice requirements under West Virginia Code § 22-6A-16(b) for the tract of land as follows:

State:	<u>WV</u>	UTM NAD 83	Easting:	<u>517,395</u>
County:	<u>Wetzel</u>		Northing:	<u>4,392,644</u>
District:	<u>Proctor</u>	Public Road Access:	<u>Wetzel County Route 1/2</u>	
Quadrangle:	<u>New Martinsville</u>	Generally used farm name:	<u>Richard Erlewine</u>	
Watershed:	<u>Tributary of Proctor Creek</u>			

Name: Todd Klaner, Regional Land Manager
Address: 625 Liberty Ave Suite 1700
Pittsburgh PA 15222

Signature: 
Date: 10/03/2018

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 10/3/18 **Date Permit Application Filed:** 10/3/18

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)

(at the address listed in the records of the sheriff at the time of notice):

Name: See Attached
Address: _____

Name: See Attached
Address: _____

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: <u>WV</u>	UTM NAD 83	Easting: <u>517,395</u>
County: <u>Wetzel</u>		Northing: <u>4,392,644</u>
District: <u>Proctor</u>	Public Road Access: <u>Wetzel County Route 1/2</u>	
Quadrangle: <u>New Martinsville</u>	Generally used farm name: <u>Richard Erlewine</u>	
Watershed: <u>Tributary of Proctor Creek</u>		

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: EQT Production Company
Telephone: 304-848-0035
Email: espine@eqt.com

Address: 2400 Ansys Drive Suite 200 Canonsburg PA 15317
Facsimile: 304-848-0041

RECEIVED
Office of Oil and Gas
OCT - 9 2018
WV Department of
Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Surface Owner:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Surface Owner Access Road:

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

Emily Diane Wilson
3453 Huff Ridge Road
New Martinsville, WV 26155

Linda Stoneking
6139 American Ridge Road
New Martinsville, WV 26155

Christy (Leek) Wilson
2997 Huff Ridge Road
New Martinsville, WV 26155

Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

EQT Production Company
625 Liberty Ave, Suite 1700
Pittsburgh PA 15222

471031042019
Surface Owner Pits/ Impoundment/Potential Asst

RICHARD L ERLEWINE
1834 PROCTOR CREEK RD
PROCTOR WV 26055-1449

Don Arrick
17954 Energy Road
Proctor, WV 26055

Emily Diane Wilson
3453 Huff Ridge Road
New Martinsville, WV 26155

Linda Stoneking
6139 American Ridge Road
New Martinsville, WV 26155

Christy Leek (Leek) Wilson
2997 Huff Ridge Road
New Martinsville, WV 26155

Linda (Anderson) Seagrave
2641 Huff Ridge
New Martinsville, WV 26155

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WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
VOLUNTARY STATEMENT OF NO OBJECTION

Instructions to Persons Named on Page WW-6A

The well operator named on page WW-6A is applying for a permit from the State of West Virginia to conduct oil or gas well work. Well work permits are valid for twenty-four (24) months. Please contact the listed well operator and the Office of Oil and Gas if you do not own any interest in the listed surface tract.

Comment and Waiver Provisions

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary.

Pursuant to West Virginia Code § 22-6A-8(b) No permit may be issued less than thirty days after the filing date of the application for any well work except plugging or replugging; and no permit for plugging or replugging may be issued less than five days after the filing date of the application except a permit for plugging or replugging a dry hole: *Provided*, That if the applicant certifies that all persons entitled to notice of the application under the provisions of subsection (b), section ten of this article have been served in person or by certified mail, return receipt requested, with a copy of the well work application, including the erosion and sediment control plan, if required, and the well plat, and further files written statements of no objection by all such persons, the secretary may issue the well work permit at any time.


VOLUNTARY STATEMENT OF NO OBJECTION

I, EQT Production Company, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through _____, including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows:

State: <u>WV</u>	UTM NAD 83 Easting: <u>517.395</u>
County: <u>Wetzel</u>	Northing: <u>4.392.644</u>
District: <u>Proctor</u>	Public Road Access: <u>Wetzel County Route 1/2</u>
Quadrangle: <u>New Martinsville</u>	Generally used farm name: <u>Richard Erlewine</u>
Watershed: <u>Tributary of Proctor Creek</u>	

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I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

<p>*Please check the box that applies</p> <p><input type="checkbox"/> SURFACE OWNER</p> <p><input checked="" type="checkbox"/> SURFACE OWNER (Road and/or Other Disturbance)</p> <p><input type="checkbox"/> SURFACE OWNER (Impoundments/Pits)</p> <p><input type="checkbox"/> COAL OWNER OR LESSEE</p> <p><input type="checkbox"/> COAL OPERATOR</p> <p><input type="checkbox"/> WATER PURVEYOR</p> <p><input type="checkbox"/> OPERATOR OF ANY NATURAL GAS STORAGE FIELD</p>	<p>FOR EXECUTION BY A NATURAL PERSON</p> <p>Signature: _____</p> <p>Print Name: _____</p> <p>Date: _____</p> <p>FOR EXECUTION BY A CORPORATION, ETC.</p> <p>Company: <u>EQT Production Company</u></p> <p>By: <u>Todd Klaner</u></p> <p>Its: <u>Regional Land Manager</u></p> <p>Signature: </p> <p>Date: <u>10/03/2018</u></p>
--	---

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

01/04/2019



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Jim Justice
Governor

Thomas J. Smith, R. E.
Secretary of Transportation/
Commissioner of Highways

September 13, 2018

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Erlewine NMA13 Pad, Wetzel County
Erlewine 1H Erlewine 2H Erlewine 3H Erlewine 4H Erlewine 5H
Erlewine 6H Erlewine 7H Erlewine 8H Erlewine 9H Erlewine 10H

Dear Mr. Martin,

This well site will be accessed from an encroachment permit #06-2011-0131 transferred to EQT Production Company for access to the State Road for a well site located off of Wetzel County Route 1/2 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

A handwritten signature in cursive script that reads "Gary K. Clayton".

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Nick Bumgardner
EQT Production Company
CH, OM, D-6
File

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OCT - 9 2018

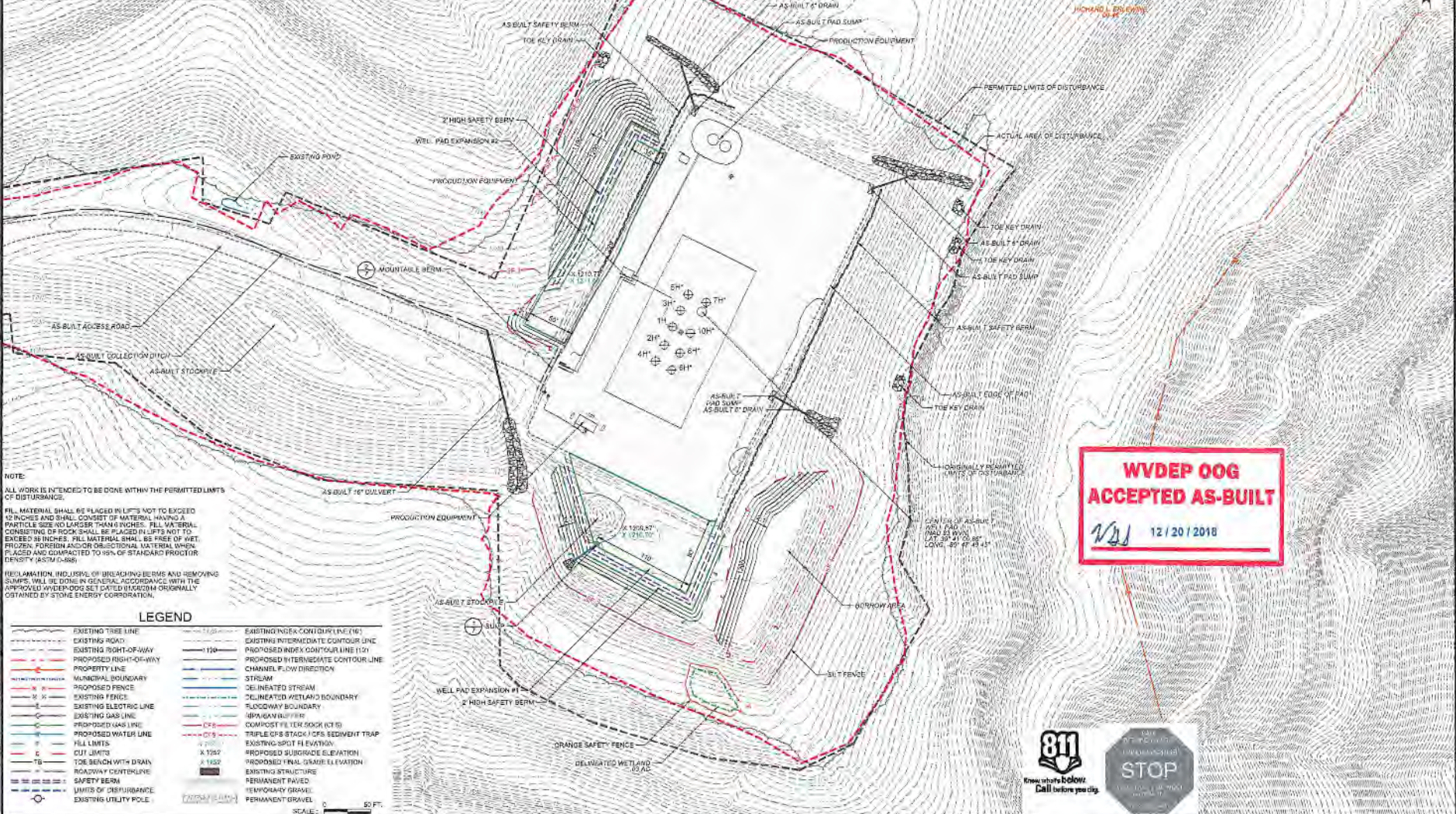
WV Department of
Environmental Protection

Anticipated Frac Additives
Chemical Names and CAS numbers

01/04/2019

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
Friction Reducer	Tributyl tetradecyl phosphonium chloride	64742-47-8
Biocide	Ammonium chloride	81741-28-8
Scale Inhibitor	Hydrochloric Acid	12125-02-9
15% Hydrochloric Acid	Propargyl Alcohol	7647-01-0
Corrosion Inhibitor	Methanol	107-19-7
Corrosion Inhibitor	Guar Gum	67-56-1
Gelling Agent	Sodium Persulfate	9000-30-0
Oxidizing Breaker	Potassium Carbonate	7775-27-1
Buffering Agent		584-08-7

ERLEWINE WELL COORDINATES							
UNIVERSAL TRANSVERSE MERCATOR (UTM) Zone 17 in North American Datum (NAD) 83 (Easting/Meter)				WEST VIRGINIA NORTH STATE PLACES IN NORTH AMERICA DATUM (NAD) 83 (Easting/Meter)			
WELL #2	APN#	NORTHING	EASTING	NORTHING	EASTING	NORTHING	EASTING
1	105-02950	4,302,652.17	517,302.10	432,710.38	1,003,439.37		
2	105-03012	4,302,646.62	517,389.49	433,697.45	1,003,430.32		
3	105-02951	4,302,657.86	517,394.70	434,726.11	1,003,448.22		
4	105-02952	4,302,641.35	517,286.89	433,624.53	1,003,421.07		
5	105-02950	4,302,648.10	517,397.31	433,746.25	1,003,457.04		
6	105-02953	4,302,638.55	517,392.39	433,665.66	1,003,429.50		
7	104-01301	4,302,644.50	517,404.82	434,737.42	1,003,476.21		
8	105-02954	4,302,667.72	517,399.26	434,645.79	1,003,446.93		
10	105-02949	4,302,648.09	517,395.16	434,391.53	1,003,467.11		
Center of Pad		4,302,652.50	517,402.10	433,737.32	1,003,472.83		



NOTE:
 ALL WORK IS INTENDED TO BE DONE WITHIN THE PERMITTED LIMITS OF DISTURBANCE.
 FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 18 INCHES AND SHALL CONSIST OF MATERIAL HAVING A PARTICLE SIZE NO LARGER THAN 10 INCHES. FILL MATERIAL CONSISTING OF ROCK SHALL BE PLACED IN LIFTS NOT TO EXCEED 18 INCHES. FILL MATERIAL SHALL BE FREE OF WET, FROZEN, FOREIGN AND/OR OBSTRUCTIONAL MATERIAL WHEN PLACED AND COMPACTED TO 95% OF STANDARD PROCTOR DENSITY (ASTM D-698).
 RECLAMATION, INCLUDING OF UNBRACING BERMS AND REMOVING SLUMPS, WILL BE DONE IN GENERAL ACCORDANCE WITH THE APPROVED WVDNR OOG SET CATERED IN KIND ORIGINALLY OBTAINED BY STONE ENERGY CORPORATION.

LEGEND	
	EXISTING TREE LINE
	EXISTING ROAD
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	PROPERTY LINE
	MUNICIPAL BOUNDARY
	PROPOSED FENCE
	EXISTING FENCE
	EXISTING ELECTRIC LINE
	EXISTING GAS LINE
	PROPOSED GAS LINE
	PROPOSED WATER LINE
	HILL LIMITS
	CUT LIMITS
	TOE BERM WITH DRAIN
	ROADWAY CENTERLINE
	SAFETY BERM
	LIMITS OF DISTURBANCE
	EXISTING UTILITY POLE
	EXISTING INDEX CONTOUR LINE (10)
	EXISTING INTERMEDIATE CONTOUR LINE (10)
	PROPOSED INDEX CONTOUR LINE (10)
	PROPOSED INTERMEDIATE CONTOUR LINE
	STREAM
	DELINEATED STREAM
	DELINEATED WETLAND BOUNDARY
	FLOODWAY BOUNDARY
	RIPIAN BUFFER
	COMPOSITE 18' TOE ROCK (18')
	TRIPLE TOE STOCKPILES SEDIMENT TRAP
	EXISTING SPOT ELEVATION
	PROPOSED SUBGRADE ELEVATION
	PROPOSED FINAL GRADE ELEVATION
	EXISTING STRUCTURE
	PERMANENT PAVED
	TEMPORARY GRAVEL
	PERMANENT GRAVEL

SCALE: 0 50 FT.

**WVDEP OOG
ACCEPTED AS-BUILT**
 12/20/2018



PROJECT: ERLEWINE PAD SITE MODIFICATION
 CLIENT: EOT PRODUCTION COMPANY
 DATE: 11/02/2018
 DRAWING NO: 3
 DESIGNER: [Name]
 CHECKER: [Name]
 APPROVED: [Signature]
 DATE: 12/20/2018
 PROJECT NO: [Number]
 SHEET NO: [Number]
 SCALE: [Scale]
 PROJECT LOCATION: [Address]
 PROJECT CONTACT: [Name]
 PROJECT PHONE: [Phone Number]
 PROJECT FAX: [Fax Number]