



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

Tuesday, July 14, 2020
WELL WORK PERMIT
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700
PITTSBURGH, PA 15222

Re: Permit approval for SIZEMORE 13H
47-103-03350-00-00

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: SIZEMORE 13H
Farm Name: ANTHONY W. & KIMBERLY /
U.S. WELL NUMBER: 47-103-03350-00-00
Horizontal 6A New Drill
Date Issued: 7/14/2020

PERMIT CONDITIONS

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

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. 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.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: _____

PERMIT CONDITIONS

11. 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.

4710303350

WW-6B
(04/15)

API NO. 47- _____ - _____
OPERATOR WELL NO. 13H _____
Well Pad Name: Sizemore _____

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

1) Well Operator: EQT Production Company

<u>306686</u>	<u>Wetzel</u>	<u>Center</u>	<u>Littleton</u>
---------------	---------------	---------------	------------------

Operator ID County District Quadrangle

2) Operator's Well Number: 13H Well Pad Name: Sizemore

3) Farm Name/Surface Owner: Anthony W. Sizemore Public Road Access: CR 7/16

4) Elevation, current ground: 1148' (built) Elevation, proposed post-construction: 1148' (built)

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

Other _____

(b) If Gas Shallow Deep _____

Horizontal

6) Existing Pad: Yes or No Yes

DMAH 5/28/20

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s): Marcellus, 7,335', 50', 2,620 psi
RECEIVED Office of Oil and Gas

JUN 02 2020

8) Proposed Total Vertical Depth: 7,335'

9) Formation at Total Vertical Depth: Marcellus
WV Department of Environmental Protection

10) Proposed Total Measured Depth: 11,287'

11) Proposed Horizontal Leg Length: 3,286'

12) Approximate Fresh Water Strata Depths: 176', 682', 717'

13) Method to Determine Fresh Water Depths: Offset Wells 47-103-02120; 47-103-02121; 47-103-02580

14) Approximate Saltwater Depths: 1,859'

15) Approximate Coal Seam Depths: 527'-531'; 754.5'-761', 888'-891'

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____

Depth: _____

Seam: _____

Owner: _____

WW-6B
(04/15)

4710303350

API NO. 47- _____
 OPERATOR WELL NO. 13H _____
 Well Pad Name: Sizemore _____

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	26	New	A-500	85.6	40	40	60 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	1041	1041	911 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	A-500	40	2463	2463	958 ft^3 / CTS
Production	5 1/2	New	P-110	20	11287	11287	500' above intermediate casing
Tubing							
Liners							

DMH 5/28/20

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	26	30	0.312	1050	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A / Type 1	1.13 - 1.19
Coal							
Intermediate	9 5/8	12 3/8	0.395	3950	3160	Class A / Type 1	1.13 - 1.19
Production	5 1/2	8 1/2	0.361	14360	11488	Class A/H	1.04 - 2.098
Tubing							
Liners							

RECEIVED
Office of Oil and Gas

JUN 02 2020

PACKERS

WV Department of
Environmental Protection

Kind:				
Sizes:				
Depths Set:				

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

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical, kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

DWH 5/28/20

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, 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 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): N/A - Site built

22) Area to be disturbed for well pad only, less access road (acres): N/A - Site built

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One centralizer at the shoe and one spaced every 500’.
- Intermediate: Bow spring centralizers– One centralizer at the shoe and one spaced every 500’.
- Production: One solid body centralizer spaced every joint from production casing shoe to KOP

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

Conductor: Class A no additives
Surface: Calcium Chloride. Used to speed the setting of cement slurries
Intermediate: Calcium Chloride. Used to speed the setting of cement slurries.
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Settling/Suspension Agent






25) Proposed borehole conditioning procedures:

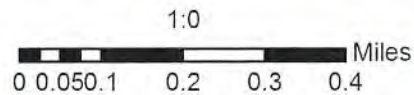
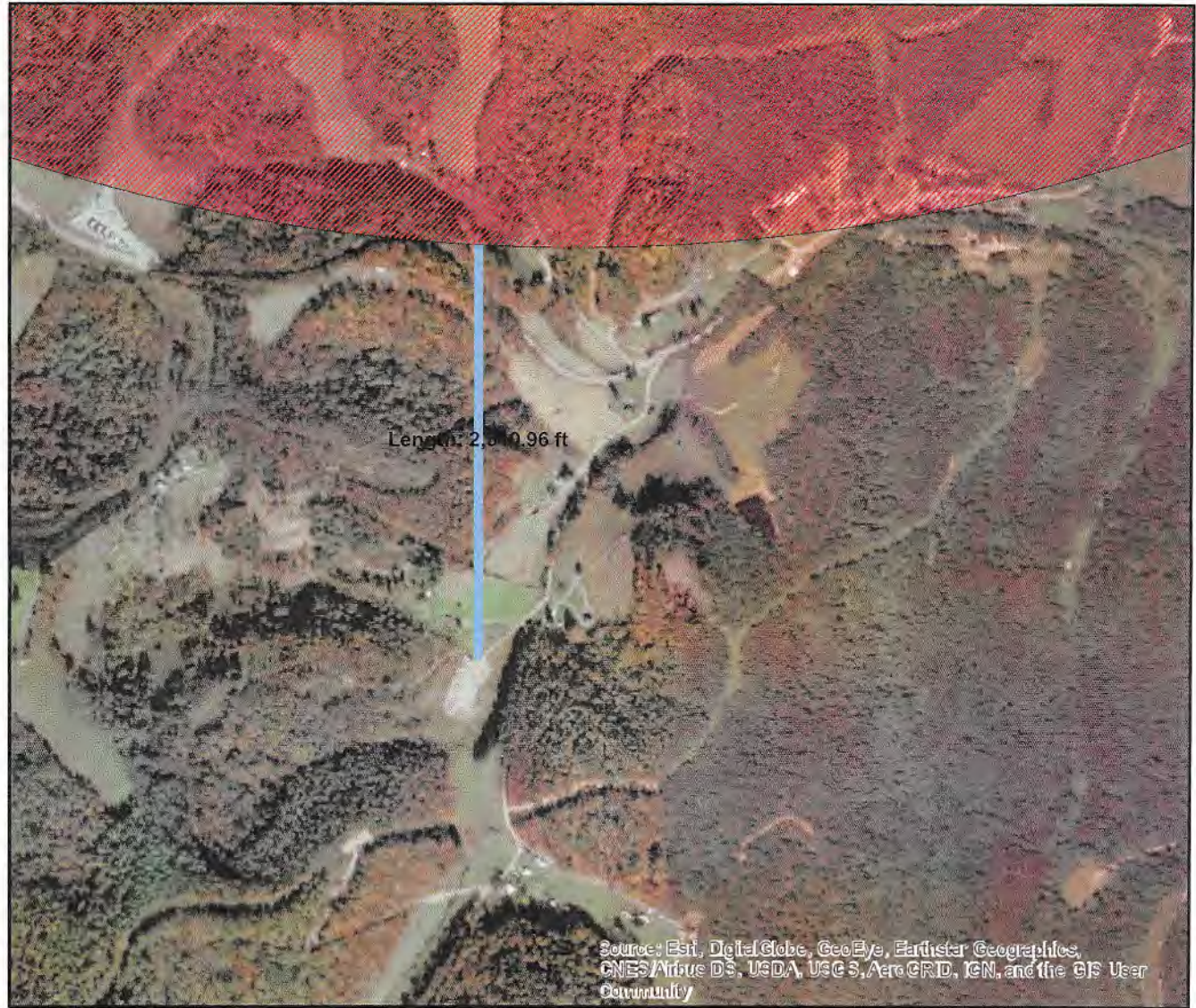
Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

Sizemore Measurement to Groundwater

Map Key

-  SB423 Wellhead Protection Area
-  Groundwater Intake (non-public water supply)
-  Surface Water Intake (non-public water supply)
-  Groundwater Intake (public water supply)
-  Surface Water Intake (public water supply)



RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

Disclaimer:
This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the appropriate usage of the information.

WW-6RW
(1-12)

BOP ACQUISITION
2547 WASHINGTON ROAD
BLDG. 700 - SUITE 720
UPPER SAINT CLAIR PA 15241-2557

API NO. 47- _____
OPERATOR WELL NO. 13H _____
Well Pad Name: Sizemore _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL LOCATION RESTRICTION WAIVER

RECEIVED
Office of Oil and Gas

The well operator, EQT Production Company is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months.

WV Department of
Environmental Protection

Well Location Restrictions

Pursuant to West Virginia Code § 22-6A-12(a), 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.

WAIVER

I, Anthony W. Sizemore and Kimberly A. Sizemore, 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: West Virginia UTM NAD 83 Easting: _____
County: Wetzel UTM NAD 83 Northing: _____
District: Center Public Road Access: Anthem Rd. (County Route 7/16) 11.00
Quadrangle: Littleton Generally used farm name: Sizemore
Watershed: Sugar Run

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 and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a).

WELL SITE RESTRICTIONS BEING WAIVED

*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

FOR EXECUTION BY A NATURAL PERSON

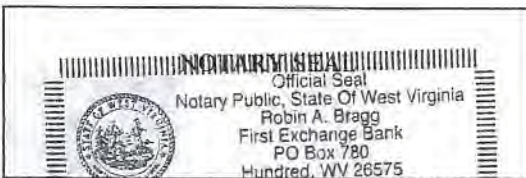
Signature: [Signature]
Print Name: Anthony W. Sizemore and Kimberly A. Sizemore
Date: 1-11-20

FOR EXECUTION BY A CORPORATION, ETC.

Company: _____
By: _____
Its: _____
Signature: _____
Date: _____

Well Operator: EQT Production Company
By: John Zavatchan
Its: Project Specialist - Permitting

Signature: [Signature]
Telephone: 724-746-9073



Subscribed and sworn before me this 11th day of January, 2020
[Signature] Notary Public
My Commission Expires 4-30-24

Oil and Gas Privacy Commission expires April 30, 2024

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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: Sizemore
County: Wetzel

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

June 1, 2020

Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Wetzel County, WV prior to hydraulic fracturing at the following EQT wells on the Sizemore pad: 3H, 5H, 7H, 9H, 11H, 13H, 15H and 17H.

Due to the requirements under 35CSR8 5.11, the permittee is required to review the area surrounding the proposed well pad so as to identify and evaluate potential conduits for unintended fracture propagation.

A report is required to be submitted along with a well work permit application.

The plan is being implemented as an additional safety measure to be utilized in conjunction with existing best management practices and emergency action plans for the site. These additional measures include coordination with well operators of the timing and location of the hydraulic fracturing, establishment of measures well operators should implement, and assurance that the OOG is notified of the timeline, as well as any issues that may arise during fracturing.

1. Communications with Well Operators

EQT, using available data (WV Geological Survey, WVDEP website, and IHS data service), has identified all known wells and well operators within 500 feet of this pad and the lateral sections that are known or could reasonably be expected to be within range of the fracture propagation. A map showing these wells along with a list of the wells and operators is included in **Attachment A**.

EQT will notify these operators of the hydraulic fracturing schedule for these wells, and coordinate with them throughout the fracturing process.

RECEIVED
Office of Oil and Gas

JUN 02 2020

EQT will recommend to these operators at a minimum to:

WV Department of
Environmental Protection

1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
3. Inspect or install master valves or other necessary equipment for wellhead integrity capable of a pressure recommended by EQT
4. Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

2. Reporting

EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

WellID	WellStatus	date	FmatTD	Permit	RemarksPRO	Operator	Longitude	Latitude	DatumEleva	TotalDepth-SS	Total Depth
4710300025	GAS	6/12/1930		00025		MANUFACTURERS LIGHT & HEAT	-80.5133	39.6292	1240.0000	-1982.0000	3222.0000
4710300027	GAS	8/27/1930		00027		MANUFACTURERS LIGHT & HEAT	-80.4911	39.6141	1250.0000	-1104.0000	2354.0000
4710300334	DRY	11/5/1946		00334		A S ISINMINGER	-80.5447	39.6429	1170.0000	-600.0000	1770.0000
4710300572	UNK			00572		F M CHISLER	-80.5132	39.6413	1418.0000		1418.0000
4710300575	OIL	8/12/1967		00575		F M CHISLER	-80.5141	39.6418	1407.0000	-1985.0000	3392.0000
4710300591	UNK			00591		R M CHISLER	-80.5010	39.6249	1240.0000		1240.0000
4710300646	UNK	5/19/1900		00646	BNJ	EPC	-80.5555	39.6615	1466.0000	-552.0000	2018.0000
4710300669	GAS-P	4/21/1904		00669		CNG	-80.5462	39.6566	1196.0000		1196.0000
4710300673	GAS	9/27/1904		00673	BNJ	CNG	-80.5519	39.6587	1020.0000	-1245.0000	2265.0000
4710300688	GAS	8/20/1914		00688	BNJGDN	EPC	-80.4963	39.6150	0.0000	-2455.0000	2455.0000
4710300696	GAS	1/2/1917		00696	GDN4SD	EPC	-80.5386	39.6469	0.0000	-3339.0000	3339.0000
4710300728	GAS	12/28/1918		00728	4SD	MANUFACTURERS L & H	-80.5103	39.6222	1300.0000	-1842.0000	3142.0000
4710300751	GAS	11/24/1905		00751	NCR	EPC	-80.5385	39.6472	0.0000	-2550.0000	2550.0000
4710300753	GAS			00753	NCR	EPC	-80.5400	39.6523	0.0000		0.0000
4710300761	GAS	2/3/1914		00761	NCR	EPC	-80.5030	39.6086	1240.0000	-2011.0000	3251.0000
4710300780	GAS			00780	NCR	EPC	-80.5103	39.6186	0.0000	-3363.0000	3363.0000
4710301118	OIL	8/30/1904		01118	GDN	PENNZOIL	-80.5335	39.6626	1190.0000	-1942.0000	3132.0000
4710301243	PLUG			01243	WERBER	PENNZOIL	-80.5667	39.6625	1250.0000		1250.0000
4710301348	UNK	2/22/1928		01348		MANUFACTURERS L & H	-80.5136	39.6442	1500.0000	-1838.0000	3338.0000
4710301827	UNK	7/20/2001		01827			-80.5269	39.6231	1299.0000	-2358.0000	3657.0000
4710301838	GAS	9/14/2001		01838	4SD	D A C	-80.5520	39.6496	1342.0000	-4342.0000	5684.0000
4710301839	GAS	8/11/2001		01839	GDN	D A C	-80.5318	39.6294	1566.0000	-2357.0000	3923.0000
4710301857	GAS	11/3/2001		01857	BNJGDN	D A C	-80.5252	39.6323	1625.0000	-2060.0000	3685.0000
4710301858	GAS	10/27/2001		01858	BNJGDN	D A C	-80.5283	39.6284	1461.0000	-2245.0000	3706.0000
4710301859	GAS	10/9/2001		01859	BNJGDN	D A C	-80.5446	39.6664	1258.0000	-2264.0000	3522.0000
4710301860	GAS	9/24/2001		01860	4SDBNJ	D A C	-80.5546	39.6532	1340.0000	-2271.0000	3611.0000
4710301866	GAS	11/12/2001		01866	GDN	D A C	-80.5232	39.6239	1596.0000	-2256.0000	3852.0000
4710301867	GAS	12/10/2001		01867	BNJGDN	D A C	-80.5401	39.6679	1296.0000	-2292.0000	3588.0000
4710301877	GAS	6/17/2002		01877	4SDBNJ	D A C	-80.5461	39.6580	1275.0000	-2354.0000	3629.0000
4710301882	GAS	7/30/2002		01882	GDN	D A C	-80.5461	39.6624	1281.0000	-2070.0000	3351.0000
4710301896	GAS	10/6/2002		01896	GDNBNJ		-80.5271	39.6424	1159.0000	-2282.0000	3441.0000
4710301897	GAS	9/20/2002		01897	GDN		-80.5181	39.6245	1405.0000	-2223.0000	3628.0000
4710301898	GAS	9/27/2002		01898	GDNBNJ		-80.5152	39.6218	1407.0000	-2233.0000	3640.0000
4710301965	GAS	8/12/2003		01965	GDN	D A C	-80.5223	39.6439	1392.0000	-2116.0000	3508.0000
4710301977	GAS	10/6/2003		01977	BNJGDN	D A C	-80.5196	39.6273	1247.0000	-2194.0000	3441.0000
4710301981	GAS	11/10/2003		01981	BNJGDS	D A C	-80.5070	39.6136	1195.0000	-2261.0000	3456.0000
4710301982	GAS	11/18/2003		01982	GDN	D A C	-80.5064	39.6150	1378.0000	-2289.0000	3667.0000
4710302033	CBM	5/5/2005		02033	PGH	DYNATEC ENERGY	-80.4985	39.6241	1221.0000	-33.0000	1254.0000
4710302034	CBM	4/27/2005		02034	PGH	DYNATEC ENERGY	-80.5064	39.6264	1187.0000	-23.0000	1210.0000
4710302035	GAS	11/11/2004		02035	GDNBNJ	D A C	-80.5087	39.6252	1408.0000	-2276.0000	3684.0000
4710302120	UNK	11/7/2005		02120	BNJ	D A C	-80.5318	39.6473	1199.0000	-2351.0000	3550.0000
4710302121	UNK	11/14/2005		02121	BNJ	D A C	-80.5345	39.6452	1374.0000	-2236.0000	3610.0000
4710302128	UNK	10/15/2005		02128	BNJ/GDN	D A C	-80.5013	39.6226	1320.0000	-2280.0000	3600.0000
4710302129	GAS	10/23/2005		02129	BNJ/GDN	D A C	-80.4986	39.6195	1339.0000	-2261.0000	3600.0000
4710302183	GAS	7/8/2006		02183	BNJGDN	D A C	-80.5364	39.6397	1431.0000	-2269.0000	3700.0000
4710302190	GAS	9/8/2006		02190	BNJ/GDN	D A C	-80.5713	39.6721	0.0000	-3500.0000	3500.0000
4710302200	GAS	10/14/2006		02200	BNJ/GDN	D A C	-80.5321	39.6401	0.0000	-3340.0000	3340.0000

WV Department of
Environmental Protection

JUN 02 2020

OFFICE RECEIVED
Office of Oil and Gas

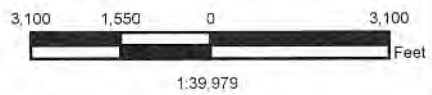
4710302201	GAS	10/8/2006	02201	BNJGDN	D A C	-80.5317	39.6429	0.0000	-3650.0000	3650.0000
4710302232	GAS	5/26/2007	02232	BNJGDSGDN5SSDBYD	D A C	-80.5299	39.6573	1360.0000	-2210.0000	3570.0000
4710302237	GAS	6/23/2007	02237	BNJGDN5SSDBYD	D A C	-80.5233	39.6502	1162.0000	-2232.0000	3394.0000
4710302251	GAS	6/16/2007	02251	BNJ/GDN	D A C	-80.5340	39.6598	1389.0000	-2196.0000	3585.0000
4710302253	GAS	8/11/2007	02253	BNJ/GDN	D A C	-80.5418	39.6408	1463.0000	-2217.0000	3680.0000
4710302294	GAS	10/16/2007	02294	BNJGDN5SD	D A C	-80.5380	39.6520	1285.0000	-2205.0000	3490.0000
4710302295	GAS	12/22/2007	02295	GDN	D A C	-80.5355	39.6355	1343.0000	-2281.0000	3624.0000
4710302298	GAS	10/23/2007	02298	5SDGDSSS	D A C	-80.5310	39.6332	1260.0000	-2320.0000	3580.0000
4710302301	GAS	11/16/2007	02301	SL/BNJ	D A C	-80.5575	39.6746	1382.0000	-2158.0000	3540.0000
4710302316	GAS	7/26/2008	02316	BNJ	D A C	-80.5264	39.6539	1321.0000	-2313.0000	3634.0000
4710302317	GAS	12/15/2007	02317	BLM/GDN	D A C	-80.5338	39.6556	1373.0000	-2230.0000	3603.0000
4710302349	GAS	8/23/2008	02349	GDN	D A C	-80.5768	39.6698	1362.0000	-2240.0000	3602.0000
4710302464	CBM	1/10/2010	02464		DOMINION COAL BED METHANE	-80.5240	39.6373	1218.0000	-53.0000	1271.0000
4710302465	CBM	12/2/2009	02465		DOMINION COAL BED METHANE	-80.5240	39.6365	1321.0000	-29.0000	1350.0000
4710302474	GAS	8/7/2009	02474	BYDBNJ5SD4SDGDS	D A C	-80.5171	39.6428	1289.0000	-2294.0000	3583.0000
4710302537	GAS	3/2/2010	02537	HTV	GRENADIER ENERGY	-80.5513	39.6706	1391.0000	-6332.0000	7723.0000
4710302572	GAS	7/29/2010	02572		GRENADIER ENERGY PARTNERS	-80.5738	39.6697	1332.0000	-5168.0000	6500.0000
4710302594	CBM	2/9/2011	02594		CONSOL GAS	-80.5244	39.6206	1216.0000	636.0000	580.0000
4710302595	CBM	2/9/2011	02595	PGH	CONSOL GAS	-80.5242	39.6392	1197.0000	-132.0000	1329.0000
471030292601	GAS	10/17/2014	92601		STATOIL USA ONSHORE PROP	-80.5456	39.6696	1471.0000	-12289.0000	13760.0000
4710330093	GAS		LOWER HUR(30093		MANUFACT LIGHT	-80.5153	39.6461	1397.0000	-2060.0000	3457.0000
4710330126	OIL GS		30126		OPER IN MIN.OWN	-80.5283	39.6325	1421.0000	-1969.0000	3390.0000
4710330130	OIL		30130		OPER IN MIN.OWN	-80.5253	39.6397	1185.0000	-1880.0000	3065.0000
4710330284	O&G	12/2/1925	30284		H E MILLIKEN	-80.5319	39.6431	1232.0000	-1984.0000	3216.0000
4710330307	OIL	4/19/1939	LOWER HUR(30307		SOUTH PENN	-80.5261	39.6492	1116.0000	-1985.0000	3101.0000
4710330448	OIL GS	3/30/1901	LOWER HUR(30448		SOUTH PENN	-80.5319	39.6614	1138.0000	-1848.0000	2986.0000
4710330553	GAS	2/6/1923	30553		MANUFACT LIGHT	-80.5136	39.6314	1394.0000	-2022.0000	3416.0000
4710330583	O&G	4/21/1904	30583		RANDALL-ZOGG	-80.5589	39.6556	1043.0000	-1874.0000	2917.0000
4710330687	GAS	11/28/1913	30687		HOPE NAT GAS	-80.4986	39.6153	1306.0000	-1910.0000	3216.0000
4710330699	GAS		30699		OPER IN MIN.OWN	-80.5503	39.6622	1226.0000	-1174.0000	2400.0000
4710330711	OIL		LOWER HUR(30711		OPER IN MIN.OWN	-80.5008	39.6114	1331.0000	-1895.0000	3226.0000
4710330720	OIL GS	3/27/1905	LOWER HUR(30720		SOUTH PENN	-80.5567	39.6586	1034.0000	-1869.0000	2903.0000
4710330808	GAS	4/22/1920	30808		HOPE NAT GAS	-80.5633	39.6631	1466.0000	-1052.0000	2518.0000
4710330922	GAS	9/20/1917	LOWER HUR(30922		MANUFACT LIGHT	-80.4953	39.6183	1.0000	-3265.0000	3266.0000
4710330980	GAS	5/29/1907	LOWER HUR(30980		HOPE NAT GAS	-80.5250	39.6453	1341.0000	-2009.0000	3350.0000
4710330986	UNK		30986		OPER IN MIN.OWN	-80.5264	39.6561	1.0000	-2359.0000	2360.0000

RECEIVED
 Office of Oil and Gas
 WV Department of
 Environmental Protection
 JUN 02 2020



RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

EQT
EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222



Sizemore

Vertical Offsets and
Foreign Laterals
within 500'

- Legend**
- Foreign Well Offset
 - Well Pad Sites
 - Geneseo
 - Marcellus
 - Utica

Disclaimer:
This map is confidential and is to be used only for the express informational purposes for which it was created. Unauthorized use, copying, or dissemination is strictly prohibited. EQT does not warrant the accuracy of the location of any items shown on this map, including, but not limited to, any structures, well or pipeline facilities, property boundaries, topography, roadways, or waterways. The items shown on the map may not have been placed on the map using survey lines or GPS coordinates. The specific location of any of the map items should be determined by a field survey performed by a licensed surveyor upon consultation with EQT.



west virginia department of environmental protection

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

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

March 18, 2014

Nabors Completion & Production Services Company
1380 Route 286 Hwy E #121
Indiana PA 15701

Re: Cement Variance Request

Dear Sir or Madam,

This agency is approving a variance request for the cement blend listed below to be used on surface and coal protection strings for the drilling of oil and gas wells in the state of West Virginia. The variance cannot be used without requesting its use on a permit application and approval by this agency:

- Type 1 (2% Calcium Chloride-Accelerator, 0.25% Super Flake-Lost Circulation, 5.2% Water, 94% Type "1" Cement)

If you have any questions regarding this matter feel free to contact me at 304-926-0499, ext. 1653.

Sincerely,

James Peterson
Environmental Resources Specialist / Permitting

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection



west virginia department of environmental protection

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

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

**BEFORE THE OFFICE OF OIL AND GAS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE OF WEST VIRGINIA**

IN THE MATTER OF A VARIANCE FROM) ORDER NO. 2014 - 17
REGULATION 35 CSR § 4-11.4/11.5/14.1)
AND 35 CSR § 8-9.2.h. 4/5/6/8 OF THE)
THE OPERATIONAL)
REGULATIONS OF CEMENTING OIL)
AND GAS WELLS)

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

REPORT OF THE OFFICE

Nabors Completion & Production Services Co. requests approval of a different cement blend for use in cementing surface and coal protection casing of oil and gas wells.

FINDINGS OF FACT

- 1.) Nabors Completion & Production Services Co. proposes the following cement blend:
 - 2% Calcium Chloride (Accelerator)
 - 0.25 % Super Flake (Lost Circulation)
 - 94% Type "1" Cement
 - 5.20 % Water

- 2.) Laboratory testing results indicate that the blend listed in Fact No.1 will achieve a 500 psi compressive strength within 6 hours and a 2,435 psi compressive strength within 24 hours.

Promoting a healthy environment.

CONCLUSIONS OF LAW

Pursuant to Articles 6 and 6A, Chapter 22 of the Code of West Virginia, the Office of Oil and Gas has jurisdiction over the subject matter embraced in said notice, and the persons interested therein, and jurisdiction to promulgate the hereinafter prescribed Order.

Pursuant to 35 CSR § 4-11.5 and 35 CSR § 8-9.2.h.8 the Chief of the Office of Oil and Gas may approve different cement blends upon the well operator providing satisfactory proof that different cement types are adequate.

ORDER

It is ordered that Nabors Completion & Production Services Co. may use the cement blend listed in Findings of Fact No.1 for the cementing of surface and coal protection casing of oil and gas wells in the State as may be requested by oil and gas operators. The waiting time on the cement blend shall be 8 hours. The cement blend shall be mixed in strict accordance with the specifications for each blend and weight measurements made on-site to assure the cement slurries meet the minimum weight specifications. A sample shall be collected and, if after 8 hours the cement is not set up, additional time will be required. Nabors Completion & Production Services Co. shall keep a record of cement blend jobs in which the cement blend approved under this order is to be used and made available to the Office of Oil and Gas upon request.

Dated this, the 18th day of March, 2014.

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

IN THE NAME OF THE STATE OF WEST VIRGINIA

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


James Martin, Chief
Office of Oil and Gas

4710303350

WEST VIRGINIA GEOLOGICAL PROGNOSIS

Horizontal Well
PUD ID

v 2017.4
Enerzia # 123456

Drilling Objectives:	Marcellus			
County:	Wetzel			
Quad:	Littleton			
Elevation:	1161 KB		1148 GL	
Surface location	Northing: 0.00	Easting: 0.00		
Landing Point	Northing: 0.00	Easting: 0.00		
Toe location	Northing: 0.00	Easting: 0.00		
Recommended Azimuth	0 Degrees			

TVD: 7335
Recommended LP to TD: 0,000'

ESTIMATED FORMATION TOPS

Derived from Pilot Hole 4710302580

Formation	Top (TVD)	Base (TVD)	Lithology	Comments
Fresh Water Zone	1	717		FW @ 176,682,717, ...
Waynesburg	527	531	Coal	
Sewickley	754.5	761	Coal	
Pittsburgh	888	891	Coal	SW @ 1859, ...
Big Injun		2363	Sandstone	
Int. csg pt	2463			
Berea	2507	2761	Sandstone	Not in storage
Top Devonian	2847			
Gantz	2847	3033	Silty Sand	
Fifty foot	3033	3101	Silty Sand	
Thirty foot	3101	3133	Silty Sand	
Bayard	3185	3631	Silty Sand	
Speechley	3694	3772	Silty Sand	
Balltown A	3772	4089	Silty Sand	
Alexander	5657	6100	Silty Sand	
Elk	6100	6880	Silty Sand	
Elks	6880	6880	Gray Shales and Silts	
Sonyea	6880	7031	Gray shale	
Middlesex	7031	7075	Shale	
Genesee	7075	7154	Gray shale interbedded	
Genesee	7154	7184	Black Shale	
Tully	7184	7206	Limestone	
Hamilton	7206	7312	Gray shale with some	
Marcellus	7312	7362	Black Shale	
Purcell	7331	7333	Limestone	
-Lateral Zone	7335			Start Lateral at 7335'
Cherry Valley	7345	7347	Limestone	
Onondaga	7362		Limestone	
Pilot Hole TD	7462			

Base of Offset Well Perforations at 3026' TVD

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

Top RR Base RR
No red rock listed in offset complet

Target Thickness	50 feet
Max Anticipated Rock Pressure	2620 PSI

Comments:
Note that this is a TVD prog for a horizontal well (azimuth of 0 degrees; target formation = Marcellus). All measurements taken from estimated KB elevation. Water and coal information estimated from surrounding well data.
Intermediate casing point is recommended beneath the Big Injun to shut off any water production from the Upper Devonian sands. Intermediate casing should be cemented into the surface string, per WV regulations.
The estimated landing point TVD is 7335'; rig geologist may adjust landing point. After the well is landed, drill to reported bed dips/ geologists' recommendation. The geologic structure is unknown at this time.

LATERAL DRILLING TOLERANCES

Mapview - Lateral: Deviate as little as possible to the left or right of the planned wellbore.
Mapview - TD: DO NOT EXTEND beyond recommended wellbore to avoid lease line.

RECOMMENDED CASING POINTS

Fresh Water/Coal	CSG OD	13 3/8	CSG DEPTH:	1041	Below Pittsburgh
Intermediate 1:	CSG OD	9 5/8	CSG DEPTH:	2463	Beneath Big Injun Base
Production:	CSG OD	5 1/2	CSG DEPTH:	@ TD	



June 1, 2020

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

Re: Casing on Sizemore 13H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,041' KB, 150' below the deepest workable coal seam and 324' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,463' KB, 100' below the base of the Big Injun formation.

If you have any questions, please do not hesitate to contact me at 724-746-9073.

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Zavatchan', is placed above the printed name.

John Zavatchan
Landman - Permitting

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

Enc.

WW-9
(4/16)

API Number 47 - _____ - 4710303350
Operator's Well No. Sizemore 13H

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 306886

Watershed (HUC 10) Tributary of Sugar Run Quadrangle Littleton

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: N/A

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

Proposed Disposal Method For Treated Pit Wastes:

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

*DMH
2-4-20*



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

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

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) John Zavatchan

Company Official Title Project Specialist - Permitting

Subscribed and sworn before me this 3rd day of February, 20 20

[Signature] Notary Public

My commission expires October 25, 2023

Commonwealth of Pennsylvania - Notary Seal
Olivia Pishoneri, Notary Public
Allegheny County
My commission expires October 25, 2023
Commission number 1359968
Member, Pennsylvania Association of Notaries

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.

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

4710303350

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed No additional disturbance 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		

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

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: 2-4-20

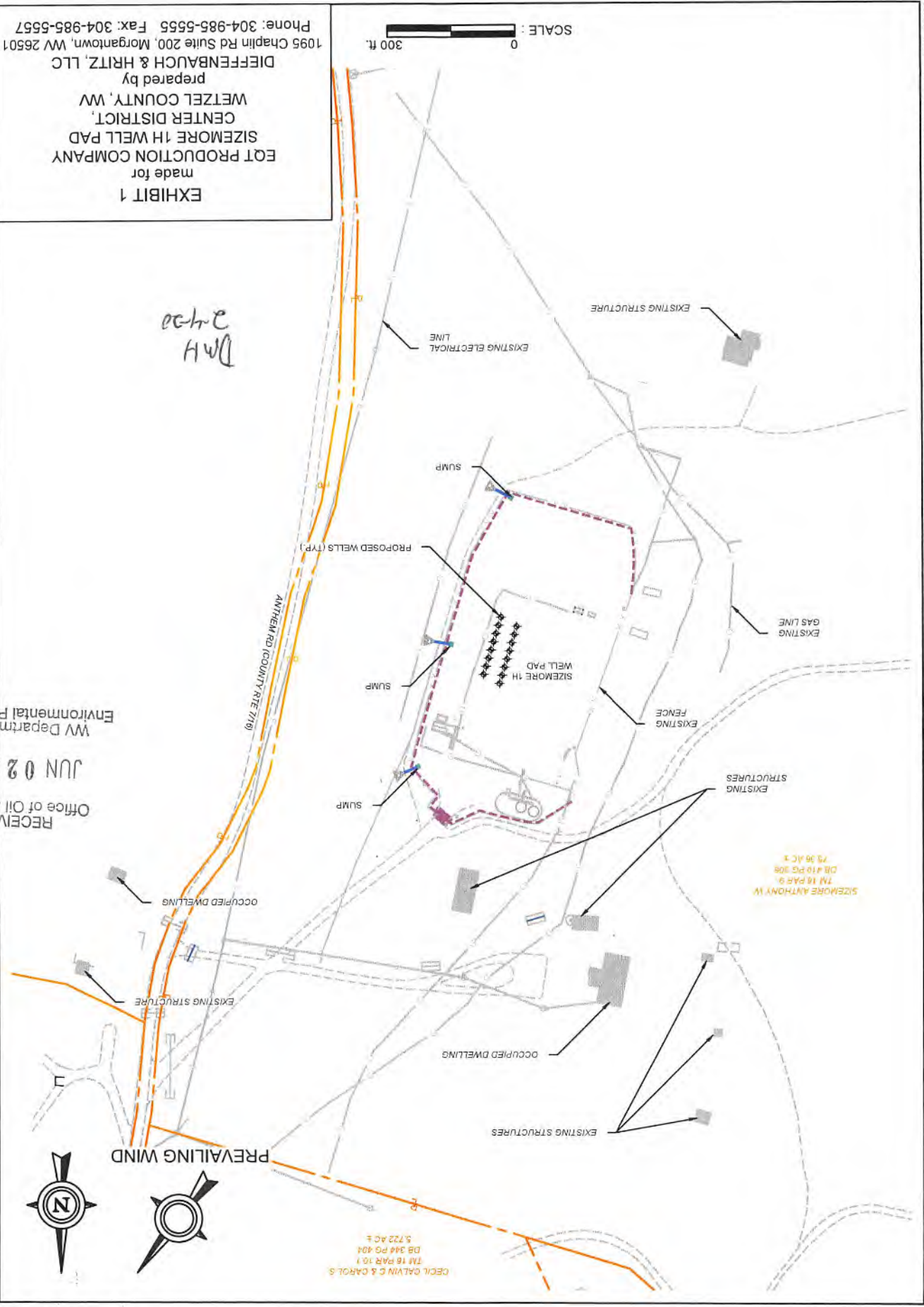
Field Reviewed? Yes No

EXHIBIT 1
made for
EQT PRODUCTION COMPANY
CENTER DISTRICT,
WETZEL COUNTY, WV
prepared by
DIEFFENBAUGH & HIRTZ, LLC
1095 Chaplin Rd Suite 200, Morgantown, WV 26501
Phone: 304-985-5555 Fax: 304-985-5557

SCALE: 0 300 ft.

DWH
2-4-20

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection



4710308350

EQT Production Water Plan									
Offsite Disposals for Unconventional Wells									
Facility Name	Address	Address 2	City	State	Zip	Phone	County	State	Permit Number
CWS Trucking Inc.	P.O. Box 391		Williamstown	WV	26187	740-516-3586	Noble	OH	3390
Broad Street Energy LLC	37 West Broad Street	Suite 1100	Columbus	OH	43215	740-516-5381	Washington	OH	8462
LAD Liquid Assets Disposal Inc.	226 Rankin Road		Washington	PA	15301	724-350-2760	Ohio	WV	USEPA WV 0014
Triad Energy	PO Box 430		Reno	OH	45773	740-516-6021 740-374-2940	Noble	OH	4037
Tri County Waste Water Management, Inc.	1487 Toms Run Road		Holbrook	PA	15341	724-627-7178 724-499-5647	Greene	PA	TC-1009
King Excavating Co. Advance Waste Services	101 River Park Drive		New Castle	PA	16101		Lawrence	PA	PAR000029132
Waste Management - Meadowfill Landfill	Rt. 2, Box 68 Dawson Drive		Bridgeport	WV	16330	304-326-6027	Harrison	WV	SWF-1032-98 Approval #100785WV
Waste Management - Northwestern Landfill	512 E. Dry Road		Parkersburg	WV	26104	304-428-0602	Wood	WV	SWF-1025 WV-0109400
APEX Landfill	11 County Road 78	PO Box 57	Amsterdam	OH	43903	740-543-4389	Jefferson	OH	06-08438
Advanced Disposal - Chestnut Valley Landfill	1184 McClellandtown Road		McClellandtown	PA	15458	724-437-7336	Fayette	PA	100419
Westmoreland Sanitary Landfill	901 Tyrol Boulevard		Belle Vernon	PA	15012	724-929-7694	Westmoreland	PA	100277
Austin Master Services	801 North 1st Street		Martins Ferry	OH	43935	740-609-3800	Belmont	OH	2014-541
Belmont Solids Control	77505 Cadiz-New Athers Road		Cadiz	OH	43907	740-942-1739	Harrison	OH	2015-511
Diversified Resources	3111 Braun Rd.		Belpre	OH	45714	740-401-0413	Washington	OH	
Buckeye Brine	23986 Airport Road		Coshocton	OH	43812	740-610-1512 724-591-4393	Coshocton	OH	34-031-27177 34-031-27178 34-031-27241
Central Environmental Services	28333 West Belpre Pike		Coolville	OH	45723	304-488-0701	Athens	OH	
Nuverra - Nichols	10555 Veto Road		Belpre	OH	45714	330-232-5041	Washington	OH	34-119-2-8776
Nuverra - Goff	9350 East Pike Road		Norwich	OH	43767	330-232-5041	Muskingum	OH	34-167-2-3862
Nuverra - Wolf	5480 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-1893
Nuverra - Pander	5310 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-3795
Nuverra - AnnaRock D-1	3549 Warner Road		Fowler	OH	44418	330-232-5041	Trumbull	OH	34-155-2-2403

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

4710303350

FQ Helen	199 Bowersock Road		Reno	OH	45773	740-374-2940 412-443-4397 740-236-2135	Washington	OH	34-167-2-9577
FQ Dexter	38505 Marietta Rd.		Dexter City	OH	45727	740-374-2940 412-443-4397 740-236-2135	Noble	OH	34-121-24037 34-121-24086
FQ Ritchie	122 Lonesome Pine Rd		Ellenboro	WV	26346	740-374-2940 412-443-4397 740-236-2135	Ritchie	WV	47-085-09721
FQ Mills	53610 TS Rd 706		Portland	OH	45770	740-374-2940 412-443-4397 740-236-2135	Meigs	OH	34-105-2-3619 34-105-2-3652 34-105-2-3637 34-105-2-3651
Petta Enterprises - OH	745 North 3rd Street		Cambridge	OH	43725	614-477-1368	Guernsey	OH	Ohio Chiefs Order 25-019
Petta Enterprises - WV	38 Technology Dr.		Tridelpia	WV	26059	740-255-5727	Ohio	WV	
Deep Rock Disposal	2341 OH-821		Marietta	OH	45750	304-629-0176	Washington	OH	34-167-2-9766

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

4710803350



Where energy meets innovation.™

Site Specific Safety and Environmental Plan

EQT

LIT51 Pad

Center

Wetzel County, WV

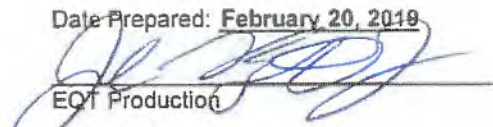
RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection


For Wells:

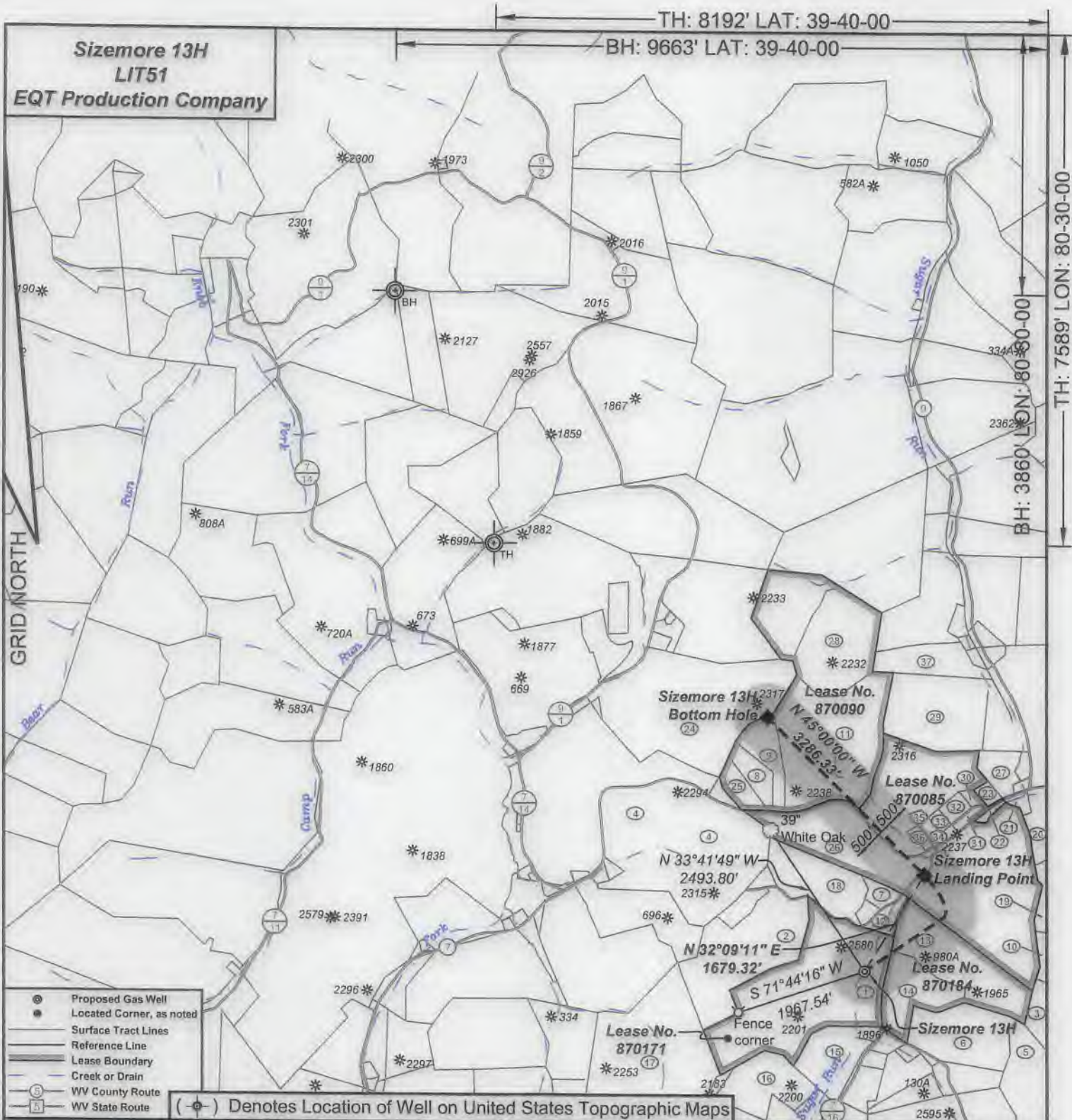
Size more 1H 3H 5H 7H 9H 11H 13H

15H 17H

Date Prepared: February 20, 2019


 EQT Production
 Project Specialist - Permitting
 Title
2/3/20
 Date


 WV Oil and Gas Inspector
 Oil and Gas Inspector
 Title
2-4-20
 Date



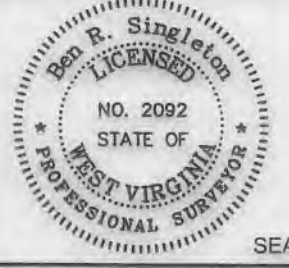
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

(⊙) 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.

Ben R. Singleton
P.S. 2092



SEAL

FILE NO: 208-19
DRAWING NO: Sizemore 13H
SCALE: 1" = 2000'
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

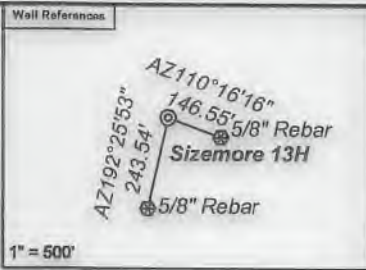
DATE: May 27 20 20
OPERATOR'S WELL NO.: Sizemore 13H
API WELL NO. ~~464~~
47 - 103 - 03350
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1148' WATERSHED: Tributary of Sugar Run QUADRANGLE: Littleton
DISTRICT: Center COUNTY: Wetzel
SURFACE OWNER: Anthony W. & Kimberly A. Sizemore ACREAGE: 75.36
ROYALTY OWNER: Anthony W. Sizemore LEASE NO: 870171 ACREAGE: 75.36
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: 7,335'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 26330

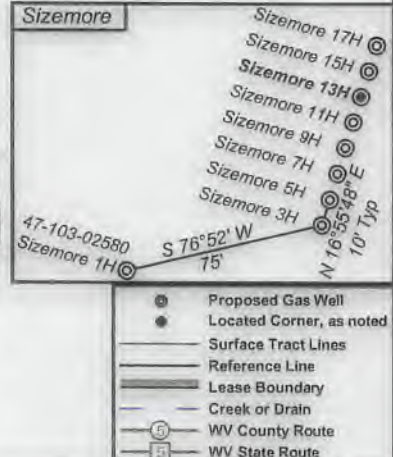
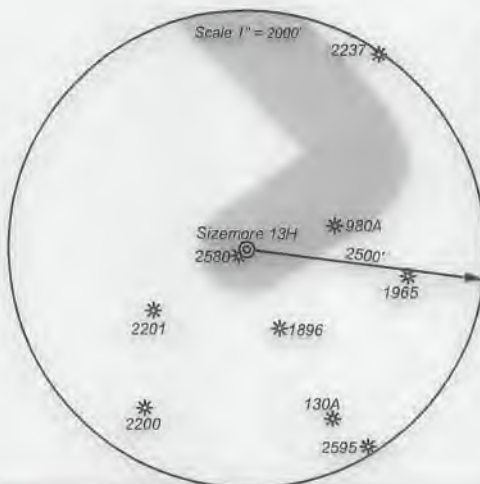
**Sizemore 13H
LIT51
EQT Production Company**

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	18	8	Wetzel	Center	Anthony Sizemore	75.36
2	18	8	Wetzel	Center	Larry D. Roberts	44.50
3	9	11	Wetzel	Church	Emma P. & Richard Brister	19.75
4	12	9	Wetzel	Center	Nancy E. Joffe	44.77
5	9	12	Wetzel	Church	Terrance J. & Terri L. O'Brien	81.00
6	16	37	Wetzel	Center	Russell J. Strum	30.00
7	16	10	Wetzel	Center	Calvin C. & Carol Cecil	3.18
8	12	22.3	Wetzel	Center	EQT Production Company	6.78
9	12	22	Wetzel	Center	Reda M. Amos, et al.	14.77
10	9	10	Wetzel	Church	William L. Minger	21.00
11	12	23	Wetzel	Center	Reda M. Amos, et al.	55.30
12	16	10.1	Wetzel	Center	Ray & Cassandra Stoneiving	5.72
13	16	12	Wetzel	Center	Thomas Jones, et al.	34.20
14	16	11	Wetzel	Center	Earl Null, et al.	20.00
15	16	33	Wetzel	Center	Anthony W. & Kimberly A. Sizemore	20.64
16	16	31	Wetzel	Center	Devona D. & Kelly M. Reed	18.25
17	16	29	Wetzel	Center	William J. Morris Revocable Trust	93.25
18	12	31	Wetzel	Center	John S. Stanley, et al.	22.50
19	9	8	Wetzel	Church	Mark Ransom	43.30
20	9	8.1	Wetzel	Church	Aamon A. & Flora J. Burley	18.00
21	12	42	Wetzel	Center	Carolyn Crone-Aamol	1.68
22	12	25	Wetzel	Center	Glenn & Trina Hollabaugh	0.33
23	12a	5	Wetzel	Center	Kevin R. Milliken, et al.	1.86
24	12	21	Wetzel	Center	Jamie L. A. Melissa G. Dent	78.30
25	12	19.8	Wetzel	Center	EQT Production Company	1.70
26	12	24	Wetzel	Center	Matthew L. Kennedy	87.87
27	6	29	Wetzel	Clay	April L. & Gerard B. Neims	7.47
28	12	15	Wetzel	Center	Reda M. Amos, et al.	33.00
29	8	21	Wetzel	Clay	Pamela E. Pride	35.75
30	12a	8	Wetzel	Center	Kevin R. Milliken, et al.	1.04
31	12a	6	Wetzel	Center	Robert K. Tennant	0.57
31	12a	7	Wetzel	Center	Robert K. Tennant	0.57
31	12a	8	Wetzel	Center	Robert K. Tennant	0.33
32	12a	2	Wetzel	Center	Robert K. Tennant	1.37
32	12a	3	Wetzel	Center	Robert K. Tennant	1.37
33	12a	1	Wetzel	Center	Scott A. & Abigail D. Tennant	1.37
34	12a	10	Wetzel	Center	Scott A. & Abigail D. Tennant	2.24
35	12a	9	Wetzel	Center	Matthew L. Kennedy	0.77
36	12	44	Wetzel	Center	Scott A. & Abigail D. Tennant	1.49
37	8	33	Wetzel	Clay	Pamela E. Pride	17.37



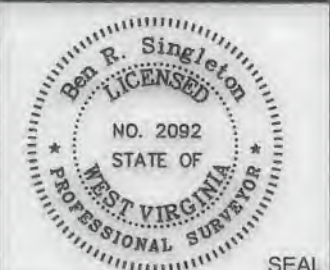
Notes:
 Sizemore 13H coordinates are
 NAD 27 N: 418,997.60 E: 1,710,218.89
 NAD 27 Lat: 39.645834 Long: -80.529090
 NAD 83 UTM N: 4,388,564.66 E: 540,420.23
 Sizemore 13H Landing Point coordinates are
 NAD 27 N: 420,419.36 E: 1,711,112.60
 NAD 27 Lat: 39.649765 Long: -80.526975
 NAD 83 UTM N: 4,389,002.37 E: 540,685.30
 Sizemore 13H Bottom Hole coordinates are
 NAD 27 N: 422,743.07 E: 1,708,788.89
 NAD 27 Lat: 39.656071 Long: -80.534322
 NAD 83 UTM N: 4,389,698.48 E: 539,965.55
 West Virginia Coordinate 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.

Lease No.	Owner	Acres
870184	Mildred Bright, et al.	54.2
870085	Charles Lee Roberts, et al.	85.87
870090	Lloyd & Nancy Postlethwait, et al.	140



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.

Ben R. Singleton
 P.S. 2092



FILE NO: 208-19
 DRAWING NO: Sizemore 13H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: May 27 20 20
 OPERATOR'S WELL NO.: Sizemore 13H
 API WELL NO: ~~None~~
 47 - 103 - 07350
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1148' WATERSHED: Tributary of Sugar Run QUADRANGLE: Littleton
 DISTRICT: Center COUNTY: Wetzel
 SURFACE OWNER: Anthony W. & Kimberly A. Sizemore ACREAGE: 75.36
 ROYALTY OWNER: Anthony W. Sizemore LEASE NO: 870171 ACREAGE: 75.36
 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: 7,335'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
 Canonsburg, PA 15317 Bridgeport, WV 26330

WW-6A1
(5/13)

Operator's Well No. Sizemore 13H

**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				

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

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

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: John Zavatchan
 Its: Project Specialist - Permitting

WW-6A1 attachment

Operator's Well No.

Sizemore 13H

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
870171 ✓	Anthony W. Sizemore James Sizemore and Donna Sizemore Drilling Appalachian Corporation Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc.	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	**	OG 84A-516 OG 124A/9 & 136A/538 OG 138A/54 OG 138A/1 OG 175A/707
870184 ✓	Mildred Bright, et al. Mildred Bright Drilling Appalachian Corporation Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc.	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	**	OG 111A/407 OG 124A/9 & 136A/538 OG 138A/54 OG 138A/1 OG 175A/707
870085 ✓	Charles Lee Roberts, et al. Charles Lee Roberts and Shirley E. Roberts, h/w Drilling Appalachian Corporation Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc.	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	**	OG 84A/452 OG 124A/9 & 136A/538 OG 138A/54 OG 138A/1 OG 175A/707
870090 ✓	Lloyd & Nancy Postlethwait, et al. Lloyd Postlethwait and Nancy Postlethwait Drilling Appalachian Corporation Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc.	Drilling Appalachian Corporation Grenadier Energy Partners, LLC Statoil USA Onshore Properties Inc. Statoil USA Onshore Properties Inc. EQT Production Company	**	OG 85A/667 OG 124A/9 & 136A/538 OG 138A/54 OG 138A/1 OG 175A/707

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

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection



EQT Production Company
400 Woodcliff Drive
Canonsburg, PA 15317
www.eqt.com

John Zavatchan
Landman - Permitting
O:724-746-9073
jzavatchan@eqt.com

June 1, 2020

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

Re: Sizemore 13H Gas Well
Center District, Wetzel County

Dear Mr. Brewer,

EQT Production Company is applying for a new well work permit for the well referenced above. Upon information and belief, the 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 'John Zavatchan', is written over a light blue circular stamp.

John Zavatchan
Landman - Permitting

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

WW-6AC
(1/12)

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

Date of Notice Certification: 06/01/2020

API No. 47- _____ - _____
Operator's Well No. 13H
Well Pad Name: Sizemore

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>West Virginia</u>	UTM NAD 83	Easting: <u>540420.23</u>
County: <u>Wetzel</u>		Northing: <u>4388564.66</u>
District: <u>Center</u>	Public Road Access: <u>CR 7/16</u>	
Quadrangle: <u>Littleton</u>	Generally used farm name: <u>Anthony W. and Kimberly A. Sizemore</u>	
Watershed: <u>Tributary of Sugar Run</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.

RECEIVED
Office of Oil and Gas
June 02 2020
WV Department of
Environmental Protection

<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>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:

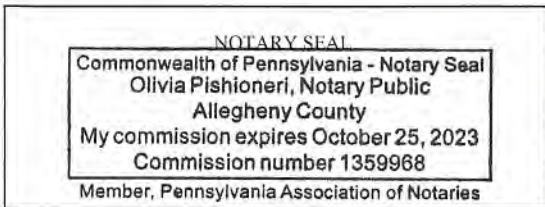
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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.

WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I John Zavatchan, 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:	<u>EQT Production Company</u>	Address:	<u>400 Woodcliff Drive</u>
By:	<u>John Zavatchan</u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Project Specialist - Permitting</u>	Facsimile:	<u>412-395-2974</u>
Telephone:	<u>724-746-9073</u>	Email:	<u>jzavatchan@eqt.com</u>



Subscribed and sworn before me this 14 day of June, 2020.
[Signature] Notary Public
 My Commission Expires October 25, 2023

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.

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

**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: 5/29/2020 **Date Permit Application Filed:** 6/1/2020

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 AttachedList
Address: _____

Name: _____
Address: _____

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

Name: _____
Address: _____

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

COAL OWNER OR LESSEE
Name: See AttachedList
Address: _____

COAL OPERATOR
Name: _____
Address: _____

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

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

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
JUN 02 2020
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.

RECEIVED
Office of Oil and Gas
JUN 02 2020

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

WW-6A
(8-13)

API NO. 47- _____ - _____
OPERATOR WELL NO. 13H. _____
Well Pad Name: Sizemore _____

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 **RECEIVED** 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. **Office of Oil and Gas**
JUN 02 2020

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

WV Department of
Environmental Protection

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

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.

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

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.

WW-6A
(8-13)

API NO. 47- 4710303350
OPERATOR WELL NO. 13H
Well Pad Name: Sizemore

Notice is hereby given by:

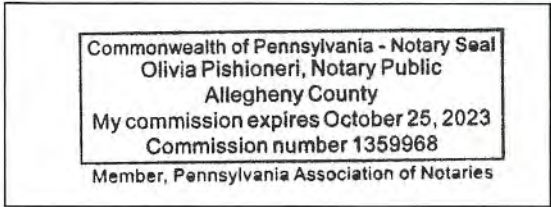
Well Operator: EQT Production Company
Telephone: 724-746-9073
Email: jzavatchan@eqt.com



Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Facsimile: 412-395-2974

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 1st day of June, 2020
[Signature] Notary Public
My Commission Expires October 25, 2023

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

Surface Owners:

Anthony W. and Kimberly A. Sizemore
63 Styles Run Road
Metz, WV 26585

Surface Owners (road, AST, or other disturbance):

Anthony W. and Kimberly A. Sizemore
63 Styles Run Road
Metz, WV 26585

Water Supply Owners within 1,500'

Anthony W. and Kimberly A. Sizemore
63 Styles Run Road
Metz, WV 26585

Calvin & Carol Cecil & Edna Lemasters
6111 Hornet Highway
Hundred, WV 26575

Gregory and Adair Wood
621 Mt. Herman Road
Wileyville, WV 26581

John Starkey
759 Veterans Highway
New Martinsville, WV 26155

Larry Roberts
543 Delta Road
Wileyville, WV 26581

Nathan Sizemore
330 Mt. Herman Road
Wileyville, WV 26581

Ray and Cassandra Stoneking
130 Delta Road
Wileyville, WV 26581

Thomas and Theresa Jones
291 Mount Herman Road
Littleton, WV 26581

Coal Owner

Anthony W. Sizemore
63 Styles Run Road
Metz, WV 26585

New Gauley Coal Corp.
5260 Irwin Road
Huntington, WV 25705-3247

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

4710303350

Topo Quad: Littleton Scale: 1" = 1000'

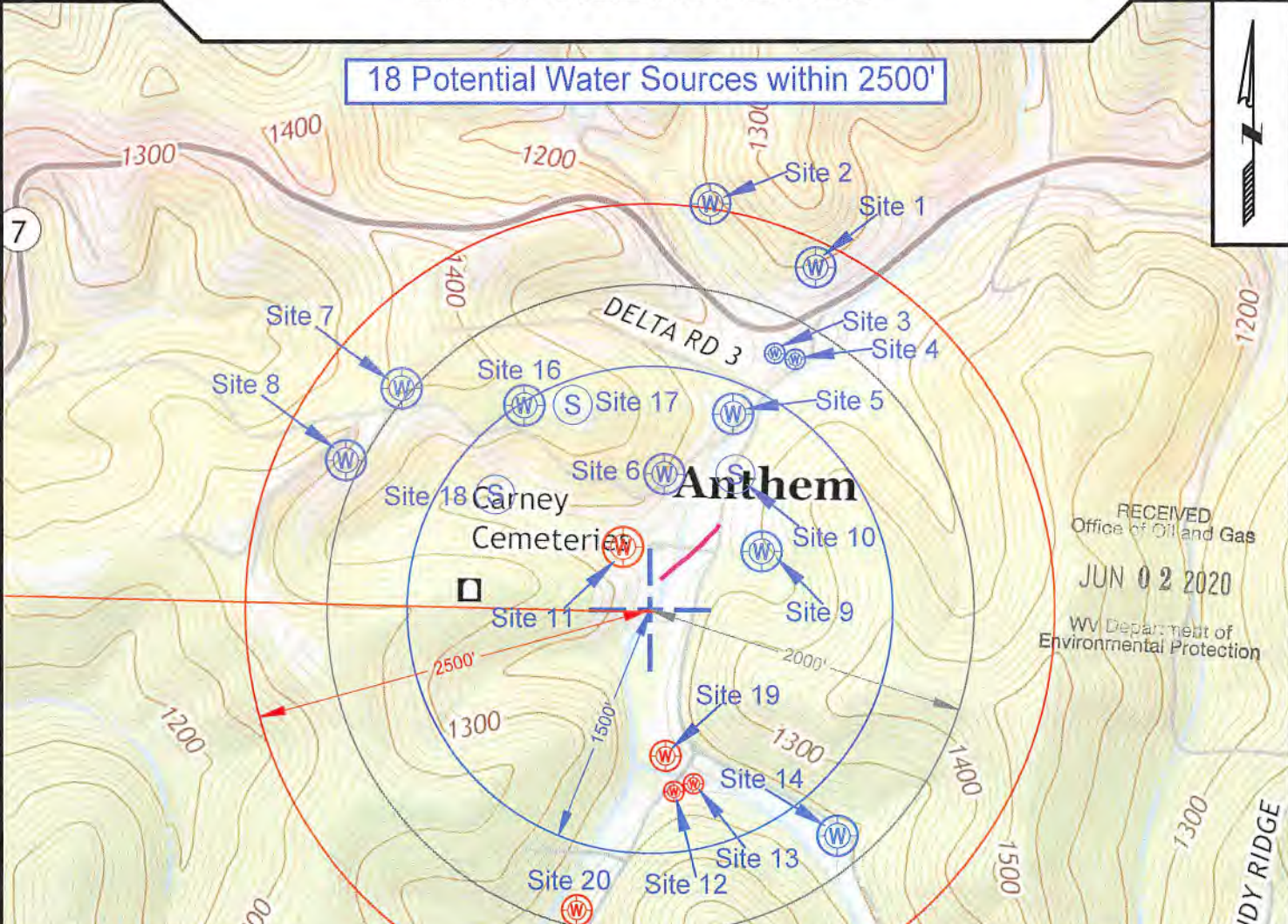
County: Wetzel Date: December 13, 2019

District: Center Project No: 208-34-C-19

Water

LIT 51 SIZEMORE PAD

18 Potential Water Sources within 2500'



RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of
Environmental Protection

LEGEND

- Red Symbol - Declined Sampling
- Blue Symbol - Requested Sampling / Unable to Contact
- Access Road
- ⊕ Well
- ⊙ Spring
- ▲ Pond
- Building

NAD 27, North Zone
N:418978.46
E:1710213.07

WGS 84
LAT:39.645864
LONG:-80.524746
ELEV:1710213.07



SURVEYING AND MAPPING SERVICES PERFORMED BY:

ALLEGHENY SURVEYS, INC.

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

PREPARED FOR:

EQT Production Company

2400 Ansys Drive, Suite 200
Canonsburg, PA 15317



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Byrd E. White, III
Secretary of Transportation/
Commissioner of Highways

December 10, 2019

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

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 James Sizemore Pad, Wetzel County

Sizemore 3H

Sizemore 5H

Sizemore 7H

Sizemore 9H

Sizemore 11H

Sizemore 13H

Sizemore 15H

Sizemore 17H

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2010-0264 which has been transferred to EQT Production Company for access to the State Road for a well site located off Wetzel County Route 6 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. 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 October 1, 2018.

Very Truly Yours,

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

Cc: John Zavatchan
EQT Production Company
CH, OM, D-6
File

Anticipated Frac Additives
Chemical Names and CAS numbers

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Water		
Sand	Hydrotreated light petroleum distillate	14808-60-7
	Tributyl tetradecyl phosphonium chloride	64742-47-8
Friction Reducer		
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

RECEIVED
Office of Oil and Gas

JUN 02 2020

WV Department of
Environmental Protection

EROSION & SEDIMENT CONTROL PLAN

SIZEMORE 1H WELL PAD MODIFICATION

CENTER DISTRICT, WETZEL COUNTY, WV

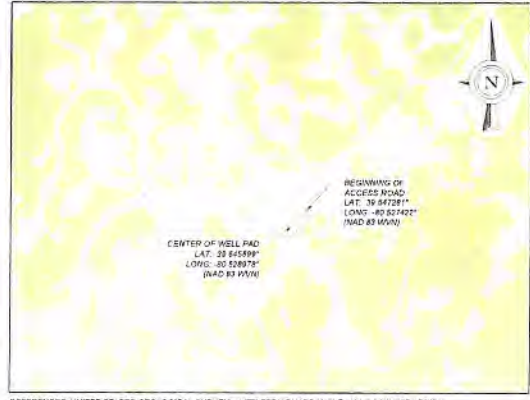
FOR

EQT PRODUCTION COMPANY

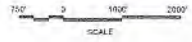
APPROVED
WVDEP OOG
5/28/2020

DISTURBANCE BREAKDOWN			
ACCESS ROAD	WELL PAD	TOTAL DISTURBANCE	
0.52 AC	3.85 AC	4.37 AC	

LANDOWNER DISTURBANCE BREAKDOWN			
LANDOWNER	DISTURBANCE FROM ACCESS ROAD	DISTURBANCE FROM WELL PAD	TOTAL DISTURBANCE
ESTFORD ANTHONY W TM 16 PAR 008 410 PG 306	0.56 AC	3.85 AC	4.41 AC
UNKOWN	0.00 AC	N/A	0.00 AC



REFERENCES: UNITED STATES GEOLOGICAL SURVEY - LITTLETON QUADRANGLE, WV, 7.5 MINUTE SERIES



PROJECT NO. 19070-090
JANUARY 2020

DIEFFENBAUCH & HRITZ, LLC



SCALE AND PLOTTED BY: JAM, FILE: E:\JLW\NO\GAS\EROSION\19070-090-SIZEMORE 1H WELL PAD MODIFICATION.DWG, P:\PLANS\EROSION\19070-090-EROSION.DWG

WELL LOCATIONS									
WELL NO.	WELL TYPE	WELL DEPTH (FT)	WELL DIAMETER (IN)	WELL COORDINATES (NAD 83 WVI)	WELL STATUS	WELL OWNER	WELL OPERATOR	WELL DATE	WELL COMMENTS
101	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
102	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
103	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
104	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
105	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
106	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
107	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
108	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
109	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification
110	1H	100	12	39 56599, -80 52878	Active	EQT	EQT	01/2020	Well pad modification

RECEIVED
Office of Oil and Gas
JUN 02 2020
WV Department of Environmental Protection

DWA 5/28/20

INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	AS-BUILT SITE PLAN
3	PROPOSED SITE PLAN
4	PROPOSED RESTORATION PLAN
5	AS-BUILT ACCESS ROAD PROFILE
6	WELL PAD TYPICAL SECTIONS
7	E&S DETAILS



CLIENT: EQT PRODUCTION COMPANY
 PROJECT NO: 19070-090
 DATE: JAN 2020
 DRAWN BY: JAM
 CHECKED BY: JAM
 APPROVED BY: Roman C. Hritz
 REGISTERED PROFESSIONAL ENGINEER
 NO. 18196
 STATE OF WEST VIRGINIA
 EXPIRES: 05/19/2020

WELL LOCATIONS										
ASSIGNED WELL ID	API #	(UTM X)	(UTM Y)	(UTM Z)	(UTM X)	(UTM Y)	(UTM Z)	(UTM X)	(UTM Y)	(UTM Z)
19H	47-103-02563	16738.46667	10731.451385	418930.521	167804.091	418912.801	171931.741	4389548.470	500394.010	
19H		16738.46667	10731.451385	419054.449	167807.072	419016.738	171923.758	4389570.516	500401.909	
19H		16738.46667	10731.451385	419044.882	167807.510	419007.163	171921.806	4389567.587	500401.071	
19H		16738.46667	10731.451385	419035.315	167807.148	418997.595	171918.898	4389546.653	500402.221	
19H		16738.46667	10731.451385	419025.750	167807.536	418988.028	171916.950	4389524.726	500403.381	
19H		16738.46667	10731.451385	419016.183	167807.923	418978.461	171913.002	4389502.799	500404.541	
19H		16738.46667	10731.451385	419006.617	167807.310	418968.897	171909.054	4389481.869	500405.701	
19H		16738.46667	10731.451385	418997.050	167807.698	418959.330	171905.106	4389460.942	500406.861	
19H		16738.46667	10731.451385	418987.483	167807.086	418949.763	171901.158	4389439.015	500408.021	
19H		16738.46667	10731.451385	418977.917	167807.473	418940.196	171897.210	4389418.088	500409.181	
19H		16738.46667	10731.451385	418968.350	167807.860	418930.629	171893.262	4389397.161	500410.341	
19H		16738.46667	10731.451385	418958.783	167807.248	418921.062	171889.314	4389376.234	500411.501	
19H		16738.46667	10731.451385	418949.217	167807.635	418911.495	171885.366	4389355.307	500412.661	
19H		16738.46667	10731.451385	418939.650	167807.023	418901.928	171881.418	4389334.380	500413.821	
19H		16738.46667	10731.451385	418930.083	167807.410	418892.361	171877.470	4389313.453	500414.981	
19H		16738.46667	10731.451385	418920.517	167807.797	418882.794	171873.522	4389292.526	500416.141	
19H		16738.46667	10731.451385	418910.950	167807.185	418873.227	171869.574	4389271.599	500417.301	
19H		16738.46667	10731.451385	419000.383	167807.572	418863.660	171865.626	4389250.672	500418.461	
19H		16738.46667	10731.451385	418990.817	167807.959	418854.093	171861.678	4389229.745	500419.621	
19H		16738.46667	10731.451385	418981.250	167807.346	418844.526	171857.730	4389208.818	500420.781	
19H		16738.46667	10731.451385	418971.683	167807.733	418834.959	171853.782	4389187.891	500421.941	
19H		16738.46667	10731.451385	418962.117	167807.120	418825.392	171849.834	4389166.964	500423.101	
19H		16738.46667	10731.451385	418952.550	167807.507	418815.825	171845.886	4389145.037	500424.261	
19H		16738.46667	10731.451385	418942.983	167807.894	418806.258	171841.938	4389124.110	500425.421	
19H		16738.46667	10731.451385	418933.417	167807.281	418796.691	171837.990	4389103.183	500426.581	
19H		16738.46667	10731.451385	418923.850	167807.668	418787.124	171834.042	4389082.256	500427.741	
19H		16738.46667	10731.451385	418914.283	167807.055	418777.557	171830.094	4389061.329	500428.901	
19H		16738.46667	10731.451385	418904.717	167807.442	418767.990	171826.146	4389040.402	500430.061	
19H		16738.46667	10731.451385	418895.150	167807.829	418758.423	171822.198	4389019.475	500431.221	
19H		16738.46667	10731.451385	418885.583	167807.216	418748.856	171818.250	4389000.548	500432.381	
19H		16738.46667	10731.451385	418876.017	167807.603	418739.289	171814.302	4388979.621	500433.541	
19H		16738.46667	10731.451385	418866.450	167807.990	418729.722	171810.354	4388958.694	500434.701	
19H		16738.46667	10731.451385	418856.883	167807.377	418720.155	171806.406	4388937.767	500435.861	
19H		16738.46667	10731.451385	418847.317	167807.764	418710.588	171802.458	4388916.840	500437.021	
19H		16738.46667	10731.451385	418837.750	167807.151	418701.021	171798.510	4388895.913	500438.181	
19H		16738.46667	10731.451385	418828.183	167807.538	418691.454	171794.562	4388875.000	500439.341	
19H		16738.46667	10731.451385	418818.617	167807.925	418681.887	171790.614	4388854.073	500440.501	
19H		16738.46667	10731.451385	418809.050	167807.312	418672.320	171786.666	4388833.146	500441.661	
19H		16738.46667	10731.451385	418800.483	167807.699	418662.753	171782.718	4388812.219	500442.821	
19H		16738.46667	10731.451385	418790.917	167807.086	418653.186	171778.770	4388791.292	500443.981	
19H		16738.46667	10731.451385	418781.350	167807.473	418643.619	171774.822	4388770.365	500445.141	
19H		16738.46667	10731.451385	418771.783	167807.860	418634.052	171770.874	4388749.438	500446.301	
19H		16738.46667	10731.451385	418762.217	167807.247	418624.485	171766.926	4388728.511	500447.461	
19H		16738.46667	10731.451385	418752.650	167807.634	418614.918	171762.978	4388707.584	500448.621	
19H		16738.46667	10731.451385	418743.083	167807.021	418605.351	171759.030	4388686.657	500449.781	
19H		16738.46667	10731.451385	418733.517	167807.408	418595.784	171755.082	4388665.730	500450.941	
19H		16738.46667	10731.451385	418723.950	167807.795	418586.217	171751.134	4388644.803	500452.101	
19H		16738.46667	10731.451385	418714.383	167807.182	418576.650	171747.186	4388623.876	500453.261	
19H		16738.46667	10731.451385	418704.817	167807.569	418567.083	171743.238	4388602.949	500454.421	
19H		16738.46667	10731.451385	418695.250	167807.956	418557.516	171739.290	4388581.022	500455.581	
19H		16738.46667	10731.451385	418685.683	167807.343	418547.949	171735.342	4388560.095	500456.741	
19H		16738.46667	10731.451385	418676.117	167807.730	418538.382	171731.394	4388539.168	500457.901	
19H		16738.46667	10731.451385	418666.550	167807.117	418528.815	171727.446	4388518.241	500459.061	
19H		16738.46667	10731.451385	418656.983	167807.504	418519.248	171723.498	4388497.314	500460.221	
19H		16738.46667	10731.451385	418647.417	167807.891	418509.681	171719.550	4388476.387	500461.381	
19H		16738.46667	10731.451385	418637.850	167807.278	418500.114	171715.602	4388455.460	500462.541	
19H		16738.46667	10731.451385	418628.283	167807.665	418490.547	171711.654	4388434.533	500463.701	
19H		16738.46667	10731.451385	418618.717	167807.052	418480.980	171707.706	4388413.606	500464.861	
19H		16738.46667	10731.451385	418609.150	167807.439	418471.413	171703.758	4388392.679	500466.021	
19H		16738.46667	10731.451385	418600.583	167807.826	418461.846	171700.810	4388371.752	500467.181	
19H		16738.46667	10731.451385	418591.017	167807.213	418452.279	171696.862	4388350.825	500468.341	
19H		16738.46667	10731.451385	418581.450	167807.600	418442.712	171692.914	4388329.898	500469.501	
19H		16738.46667	10731.451385	418571.883	167807.987	418433.145	171688.966	4388308.971	500470.661	
19H		16738.46667	10731.451385	418562.317	167807.374	418423.578	171685.018	4388288.044	500471.821	
19H		16738.46667	10731.451385	418552.750	167807.761	418414.011	171681.070	4388267.117	500472.981	
19H		16738.46667	10731.451385	418543.183	167807.148	418404.444	171677.122	4388246.190	500474.141	
19H		16738.46667	10731.451385	418533.617	167807.535	418394.877	171673.174	4388225.263	500475.301	
19H		16738.46667	10731.451385	418524.050	167807.922	418385.310	171669.226	4388204.336	500476.461	
19H		16738.46667	10731.451385	418514.483	167807.309	418375.743	171665.278	4388183.409	500477.621	
19H		16738.46667	10731.451385	418504.917	167807.696	418366.176	171661.330	4388162.482	500478.781	
19H		16738.46667	10731.451385	418495.350	167807.083	418356.609	171657.382	4388141.555	500479.941	
19H		16738.46667	10731.451385	418485.783	167807.470	418347.042	171653.434	4388120.628	500481.101	
19H		16738.46667	10731.451385	418476.217	167807.857	418337.475	171649.486	4388099.701	500482.261	
19H		16738.46667	10731.451385	418466.650	167807.244	418327.908	171645.538	4388078.774	500483.421	
19H		16738.46667	10731.451385	418457.083	167807.631	418318.341	171641.590	4388057.847	500484.581	
19H		16738.46667	10731.451385	418447.517	167807.018	418308.774	171637.642	4388036.920	500485.741	
19H		16738.46667	10731.451385	418437.950	167807.405	418299.207	171633.694	4388015.993	500486.901	
19H		16738.46667								