



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Monday, November 15, 2021
WELL WORK PERMIT
Horizontal 6A / New Drill

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

Re: Permit approval for VANDERBILT 8H
47-049-02509-00-00

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.

A blue ink signature of James A. Martin.

James A. Martin
Chief

Operator's Well Number: VANDERBILT 8H
Farm Name: LARRY HIGGINS & EVA HIGGINS
U.S. WELL NUMBER: 47-049-02509-00-00
Horizontal 6A New Drill
Date Issued: 11/15/2021

PERMIT CONDITIONS

4704902509

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 4704902509

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.

11/19/2021

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

1) Well Operator: EQT Production Company 306686 Marion Mannington Glover Gap
Operator ID County District Quadrangle

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

3) Farm Name/Surface Owner: Larry D. & Trisha B. Higgins Public Road Access: CR-1

4) Elevation, current ground: 1396' Elevation, proposed post-construction: 1396'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow Deep _____
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus, 7,700', 56', 2,620 PSI

8) Proposed Total Vertical Depth: 7,700'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 8,758'

11) Proposed Horizontal Leg Length: 574'

12) Approximate Fresh Water Strata Depths: 253', 504'

13) Method to Determine Fresh Water Depths: Offset Wells

14) Approximate Saltwater Depths: None

15) Approximate Coal Seam Depths: 1,182'-1,188'

16) Approximate Depth to Possible Void (coal mine, karst, other): 180'

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: Harrison Co. Mine
Depth: 180'
Seam: Pittsburgh
Owner: ACNR Resources, Inc.

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OCT. 12 2021

WW-6B
(04/15)

4704908509
API NO. 47- _____
OPERATOR WELL NO. 8H _____
Well Pad Name: Vanderbilt _____

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	50 ft ³ / CTS
Fresh Water	13 3/8	New	J-55	54.5	1238	1238	1000 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2650	2650	1000 ft ³ / CTS
Production	5 1/2	New	P-110	20	8758	8758	500' above intermediate casing
Tubing							
Liners							

Bryan Ham
8.31.21

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	0.352	3520	2816	Class A / Type 1	1.13 - 1.19
Production	5 1/2	8 1/2	0.361	14360	11488	Class A/H	1.04 - 2.10
Tubing							
Liners							

PACKERS

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Kind:			
Sizes:			
Depths Set:			

WW-6B
(10/14)

API NO. 47- _____
OPERATOR WELL NO. 8H _____
Well Pad Name: Vanderbilt _____

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

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

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, 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): 56.80 Acres

22) Area to be disturbed for well pad only, less access road (acres): 8.44 Acres

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.

4704902509



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

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WV Department of
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Promoting a healthy environment.

11/19/2021

4704000000



west virginia department of environmental protection

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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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**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)

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.

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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.

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

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EQT PRODUCTION COMPANY
400 Woodcliff Drive | Canonsburg, PA 15317
P: 724-746-9073 | www.eqt.com

August 30, 2021

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

Re: Casing on Vanderbilt 8H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,238' KB, 50' below the deepest workable coal seam and 734' below the deepest fresh water. The 9-5/8" intermediate string will be set at 2,650' KB, 50' 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 'John Zavatchan'.

John Zavatchan
Project Specialist - Permitting

Enc.

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WEST VIRGINIA GEOLOGICAL PROGNOSIS

VANDERBILT

API

S-001217

Drilling Objectives:

Marcellus

County:

Marion

Quad:

Glover Gap

Elevation:

1368 KB

1355 GL

Recommended Azimuth

#N/A Degrees

Recommended LP to TD: #N/A

ESTIMATED FORMATION TOPS

Based on GLO76 Pilot hole 4704902329

Formation	Top (TVD)	Base (TVD)	Lithology	Comments	Top RR	Base RR
Fresh Water Zone	1	504		FW @ 253,504, ...		
Pittsburgh Coal	1182	1188	Coal	Solid coal within an active mining boundary		
Big Lime	2423	2492	Limestone			
Big Injun	2492	2600	Sandstone	SW @		
Int. csg pt	2650					
Gantz	3087	3175	Sandstone	Gas / Oil		
SOF	3175	3410	Silty Sand	Storage?		
Fifth Sand	3410	3457	Silty Sand			
Bayard	3457	5902	Silty Sand	Base of Offset Well Perforations at 3268' TVD		
Alexander	5902	6328	Silty Sand			
Elks	6328	7205	Gray Shales and Silts			
Sonyea	7205	7366	Gray shale			
Middlesex	7366	7420	Shale			
Genesee	7420	7512	Gray shale interbedded			
Genesee	7512	7544	Black Shale			
Tully	7544	7571	Limestone			
Hamilton	7571	7672	Gray shale with some			
Marcellus	7672	7728	Black Shale			
Purcell	7691	7693	Limestone			
-Lateral Zone	7700			Start Lateral at 7700'		
Cherry Valley	7707	7709	Limestone			
Onondaga	7728		Limestone			

Pilot hole not needed on this well

Target Thickness 56 feet

Comments:

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.

RECOMMENDED CASING POINTS

Fresh Water/Coal	CSG OD	13 3/8	CSG DEPTH:	1238	
Intermediate 1:	CSG OD	9 5/8	CSG DEPTH:	2650	Beneath the Big Injun formation
Production:	CSG OD	5 1/2	CSG DEPTH:	@ TD	

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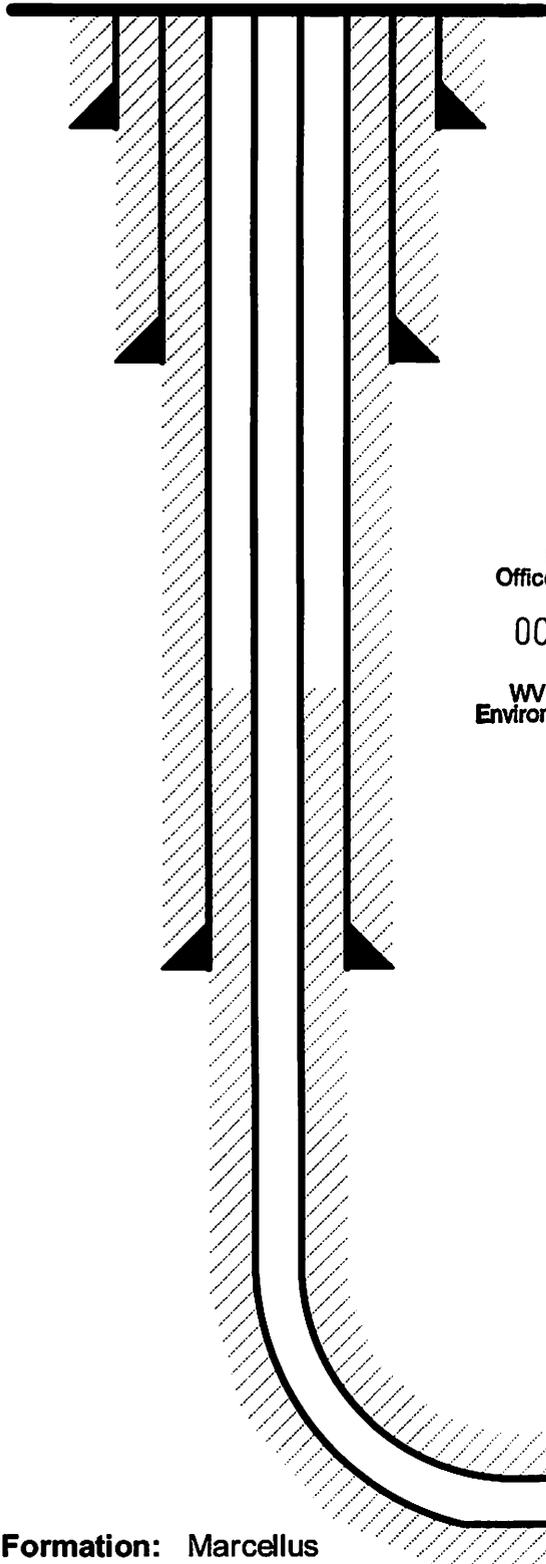
EQT Production

Wellbore Diagram

Well: Vanderbilt 8H
Pad: Vanderbilt
Elevation: 1355' GL 1368' KB

County: Marion
State: West Virginia

4704902509



Conductor @ 40'

26", 85.6#, A-500, cement to surface w/ Class A

Surface @ 1,238'

13-3/8", 54.5#, J-55, cement to surface w/ Class A/Type I

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Intermediate @ 2,650'

9-5/8", 36#, J-55, cement to surface w/ Class A/Type I

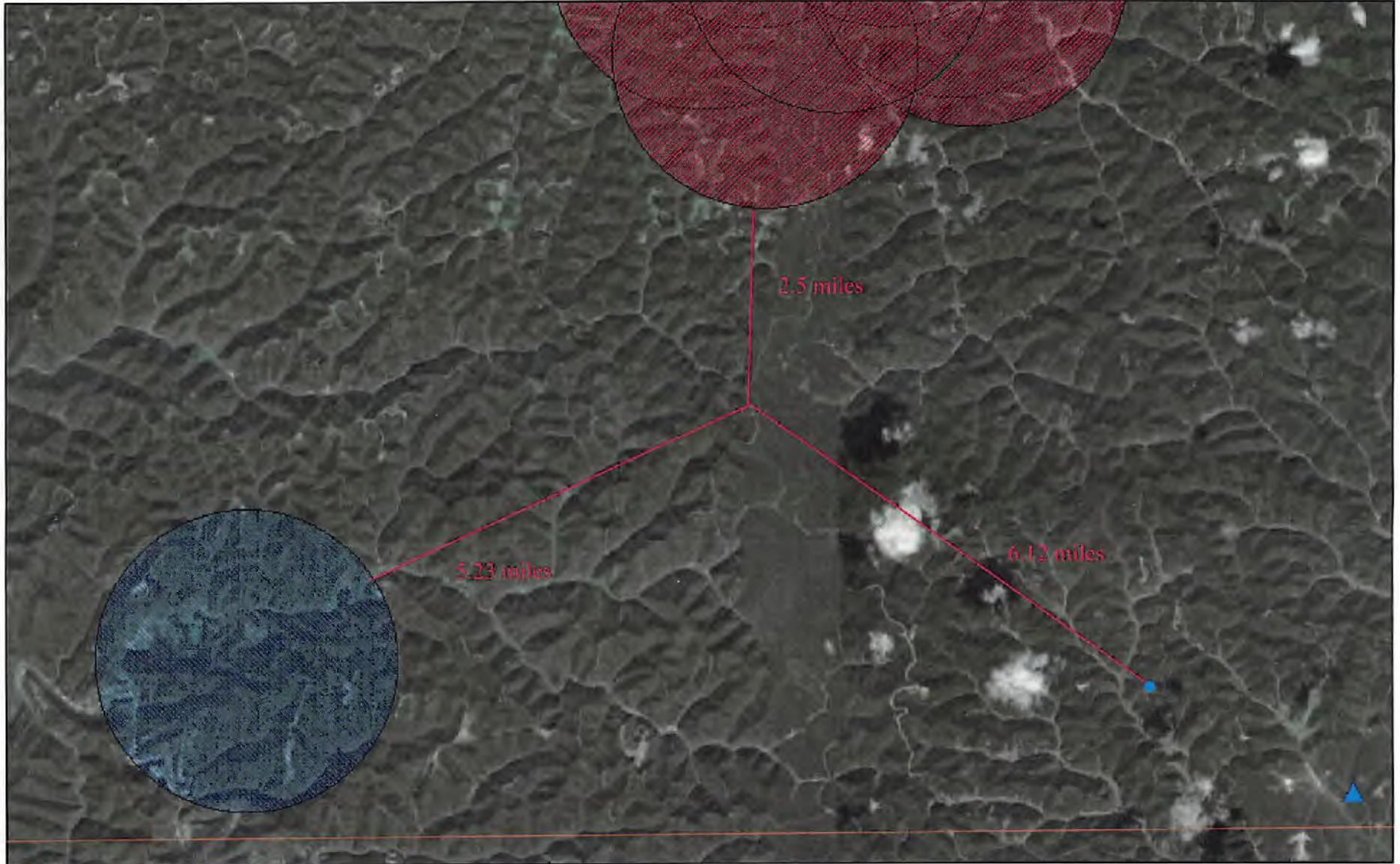
Production @ 8,758' MD / 7,700' TVD

5-1/2", 20#, P-110, cement to 500' inside 9-5/8" w/ Class A/H

Formation: Marcellus

11/19/2021
NOT TO SCALE

ArcGIS Web Map



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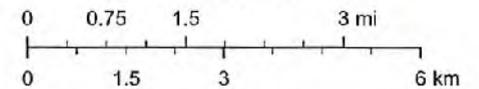
2/28/2020, 3:50:05 PM

-  Groundwater Intake (public water supply)
-  Surface Water Intake (public water supply)
-  Surface Water Intake (non-public water supply)

-  Groundwater Intake (non-public water supply)
-  Documented Springs

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1:144,448



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus

Web AppBuilder for ArcGIS
see layers | USDA FSA, Earthstar Geographics |

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EQT Production
Hydraulic Fracturing Monitoring Plan
Pad ID: Vanderbilt
County: Marion

September 1, 2021

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Page 1 of 2

11/19/2021

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Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Marion County, WV prior to hydraulic fracturing at the following EQT wells on the Vanderbilt pad: 2H, 4H, 6H, 8H and 10H.

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.

EQT will recommend to these operators at a minimum to:

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.

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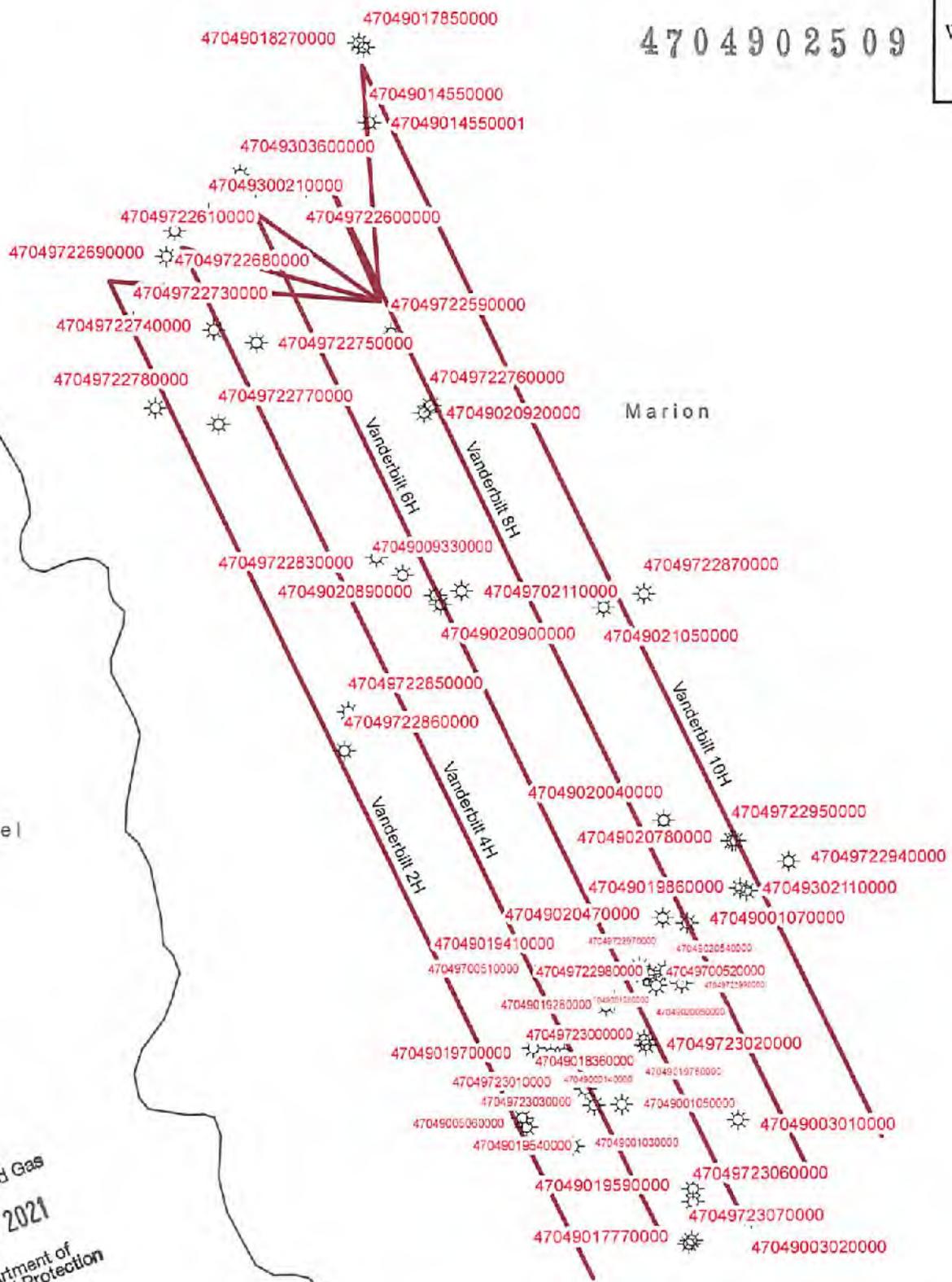
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4704902509

Wetzel

Marion

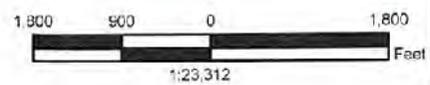


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EQT EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

Vanderbilt
Vertical Offsets and
Foreign Laterals
within 500'

Legend
☼ Foreign Offset Well
Well Lateral_FM Formation
— Genesee
— 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.



UWI	ABAND_DATE	CURR_OPER	FIELD_NAME	FNL_CLASS	LATITUDE	LONGITUDE	OPER_NAME	PROJ_ID	SPUD_DATE	ELEVATION	TOT_DEPTH
017850000		GALLATIN FUELS INC	COBURN-EARNSHAW	DEVELOPMENT WELL-GAS	39.55569440	-80.477583330	GALLATIN FUELS INC	3700.000000000	6/26/2018	1421.00	3700.00
001030000		GALLATIN FUELS INC	COBURN-EARNSHAW	DEVELOPMENT WELL-GAS	39.55583480	-80.476093930	GALLATIN FUELS INC	3700.000000000	1/23/2007	1413.00	3686.00
308500000	7/22/2008	SOUTH PENN OIL	UNNAMED	DEVELOPMENT WELL-GAS	39.51850500	-80.46698200	SOUTH PENN OIL	0.000000000	7/2/1942	1348.00	3369.00
000140000	10/22/2008	PITTSBURGH OIL & GAS	SMITHFIELD	DEVELOPMENT WELL-OIL	39.521403700	-80.46732600	PITTSBURGH OIL & GAS	0.000000000	6/1/1917	1331.00	2489.00
005060000	10/29/2007	SOUTH PENN OIL	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.521637700	-80.46732600	SOUTH PENN OIL	0.000000000	1/17/1930	1320.00	3368.00
018360000	8/27/2007	CONSOLIDATION COAL CO	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.51917000	-80.46901210	PENNZOIL CO INC	0.000000000	11/3/1928	1300.00	3342.00
001050000	10/20/2009	CONSOLIDATION COAL CO	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.52044440	-80.46641670	CONSOLIDATION COAL CO	0.000000000	10/10/1942	1274.00	1600.00
001080000	8/27/2007	EAST RESOURCES	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.51990800	-80.46481200	SOUTH PENN OIL	0.000000000	10/2/1942	1252.00	3261.00
020470000	10/20/2009	CONSOLIDATION COAL CO	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.52428500	-80.46350900	SOUTH PENN OIL	0.000000000	10/2/1942	1208.00	3130.00
017770000	11/7/2006	CONSOLIDATION COAL CO	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.52611200	-80.46177780	EQUITABLE GAS CO	0.000000000	9/1/1970	1195.00	1565.00
009020000	9/2/2008	EQUITABLE GAS CO	LOGANSPOUT	GAS STORAGE WELL	39.53716670	-80.46288890	CONSOLIDATION COAL CO	0.000000000	7/2/1942	1178.00	3126.00
001070000	5/4/1974	SOUTH PENN OIL	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.53716670	-80.47121700	GARNER & GAWTHROP INC	0.000000000	18010101	1150.00	1500.00
020890000	3/18/2010	CONSOLIDATION COAL CO	UNNAMED	DEVELOPMENT WELL-OIL	39.52439500	-80.46826200	SOUTH PENN OIL	0.000000000	18010101	1149.00	1300.00
020540000	11/5/2009	CONSOLIDATION COAL CO	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.55315280	-80.47557220	FALCON HOLDINGS LLC	3350.000000000	12/22/2003	1109.00	2300.00
014550000	014550001	GALLATIN FUELS INC	SEVEN PINES	DEVELOPMENT WELL-GAS	39.55315280	-80.47557220	FALCON HOLDINGS LLC	3400.000000000	9/5/2004	1109.00	3426.00
021050000	014550001	GALLATIN FUELS INC	UNNAMED	DEVELOPMENT WELL-GAS	39.53672220	-80.46376610	SOUTH PENN OIL	0.000000000	18010101	1077.00	3013.00
700520000	6/1/2010	CONSOLIDATION COAL CO	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.52425000	-80.46376610	SOUTH PENN OIL	0.000000000	6/8/1902	1075.00	3013.00
003010000	11/24/2006	EQUITABLE GAS CO	LOGANSPOUT	GAS STORAGE WELL	39.51931700	-80.45986200	EQUITABLE GAS CO	0.000000000	6/1/1970	1046.00	2341.00
009330000	4/6/2010	LEATHERWOOD INC	UNNAMED	DEVELOPMENT WELL-OIL	39.53787700	-80.47421700	GARNER & GAWTHROP INC	0.000000000	18010101	1046.00	0.00
702710000	9/27/1990	SOUTHERN OIL INC	UNNAMED	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.55009700	-80.48268700	SOUTHERN OIL INC	0.000000000	2/12/1917	0.00	0.00
702160000	7/27/2000	SOUTH PENN OIL	UNNAMED	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.53731500	-80.47163400	SOUTH PENN OIL	0.000000000	18010101	0.00	0.00
722770000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54356500	-80.47294600	UNNOWN	0.000000000	18010101	0.00	0.00
722590000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54298500	-80.48231300	UNNOWN	0.000000000	18010101	0.00	0.00
722600000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54603300	-80.47463200	UNNOWN	0.000000000	18010101	0.00	0.00
722500000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.55096700	-80.47837810	UNNOWN	0.000000000	18010101	0.00	0.00
722610000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.55096700	-80.48062700	UNNOWN	0.000000000	18010101	0.00	0.00
722690000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54951590	-80.48418600	UNNOWN	0.000000000	18010101	0.00	0.00
722830000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54664500	-80.48456100	UNNOWN	0.000000000	18010101	0.00	0.00
722850000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.53847400	-80.47538100	UNNOWN	0.000000000	18010101	0.00	0.00
722730000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.53324900	-80.47669200	UNNOWN	0.000000000	18010101	0.00	0.00
722750000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52454000	-80.46395900	UNNOWN	0.000000000	18010101	0.00	0.00
722860000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54664800	-80.48605900	UNNOWN	0.000000000	18010101	0.00	0.00
723000000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54547400	-80.48062700	UNNOWN	0.000000000	18010101	0.00	0.00
723020000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.55194200	-80.47688000	UNNOWN	0.000000000	18010101	0.00	0.00
723010000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52232400	-80.46545200	UNNOWN	0.000000000	18010101	0.00	0.00
723030000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52307300	-80.46376610	UNNOWN	0.000000000	18010101	0.00	0.00
723040000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52163700	-80.46788800	UNNOWN	0.000000000	18010101	0.00	0.00
723050000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.54356500	-80.48512300	UNNOWN	0.000000000	18010101	0.00	0.00
722780000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52428500	-80.46357900	UNNOWN	0.000000000	18010101	0.00	0.00
722870000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.53716690	-80.46357900	UNNOWN	0.000000000	18010101	0.00	0.00
302110000	7/21/1939	CARNEGIE NATURAL GAS CORP	UNNAMED	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.52715900	-80.45945700	CARNEGIE NATURAL GAS CORP	0.000000000	18010101	0.00	0.00
722940000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52802400	-80.45731900	UNNOWN	0.000000000	18010101	0.00	0.00
722950000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52874900	-80.45983200	HOPE NATURAL GAS	0.000000000	18010101	0.00	0.00
722960000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52439500	-80.46282900	UNNOWN	0.000000000	18010101	0.00	0.00
722990000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.52396000	-80.46208000	UNNOWN	0.000000000	18010101	0.00	0.00
723060000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.51655800	-80.46170500	UNNOWN	0.000000000	18010101	0.00	0.00
723070000	UNNAMED	UNNAMED	UNNAMED	UNCLASSIFIED	39.51510600	-80.46169300	UNNOWN	0.000000000	18010101	0.00	0.00
019780000	3/10/2008	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52189000	-80.46370000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
020050000	12/1/2009	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52890000	-80.46322010	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
020900000	2/26/2010	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.53686000	-80.47255000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
019280000	4/26/2010	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52334000	-80.47321000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
019410000	11/4/2008	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.53430000	-80.46507000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
019540000	2/5/2008	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.51948000	-80.46919000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
019700000	3/7/2008	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52189000	-80.46867000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
019660000	9/16/2008	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52706000	-80.45919010	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
020040000	12/19/2008	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52947000	-80.46281000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
020780000	3/2/2009	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.52875000	-80.45967000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00
019590000	7/23/2010	CONSOLIDATION COAL	UNNAMED	UNCLASSIFIED	39.53701000	-80.46170000	CONSOLIDATION COAL	0.000000000	18010101	0.00	0.00

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WW-9
(4/16)

API Number 47 - _____
Operator's Well No. Vanderbilt 8H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name EQT Production Company OP Code 306686

Watershed (HUC 10) Evans Run & Buffalo Creek Quadrangle Glover Gap

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 _____)

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

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

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

Additives to be used in drilling medium? See Attached

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

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

-Landfill or offsite name/permit number? See Attached List

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

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

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

Company Official Signature [Signature]
Company Official (Typed Name) John Zavatchan
Company Official Title Project Specialist - Permitting

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Subscribed and sworn before me this 11th day of October, 2021

[Signature] Notary Public

My commission expires October 25, 2023

Commonwealth of Pennsylvania - Notary Seal
Olivia Pishloneri, Notary Public
Allegheny County
My commission expires October 25, 2023
Commission number: 269968
Member, Pennsylvania Association of Notaries

4704902509

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 synthetic 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.**
- **Synthetic mud – synthetic base oil, emulsifier, salt, lime, viscosifer, alkalinity control, filtration control, deflocculates, biodegradable oil lubricant, defoaming, carbonates.**

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11/19/2021

EQT Production Company

Proposed Revegetation Treatment: Acres Disturbed _____ Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type Granular 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Dwight Harris

Comments: Pre-seed/mulch all disturbed areas as soon as reasonably possible, per regulation. Upgrade E&S as necessary per WV DEP E&S Manual.

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Title: Inspected Date: 8-31-21

Field Reviewed? (X) Yes () No

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 Athens 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

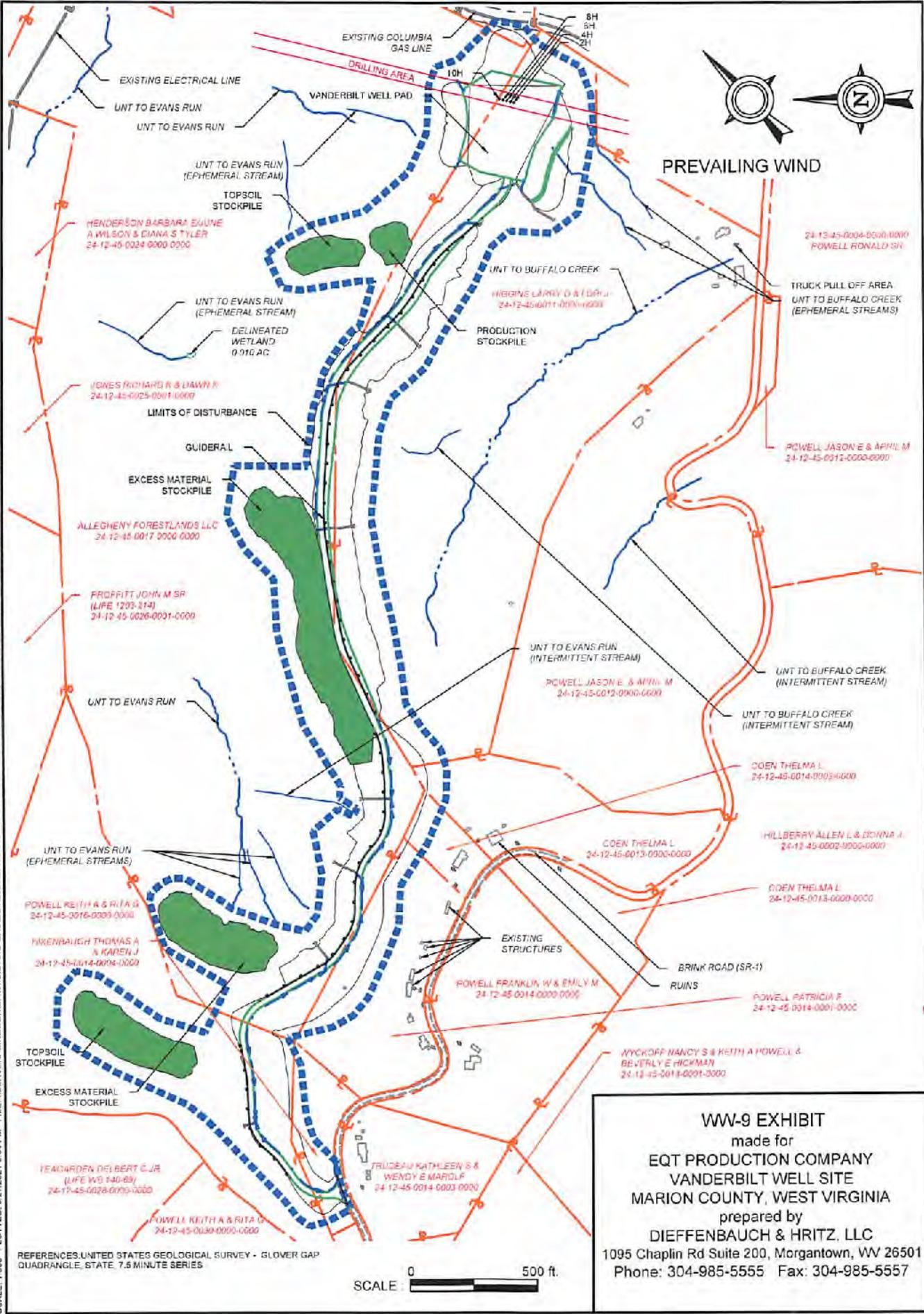
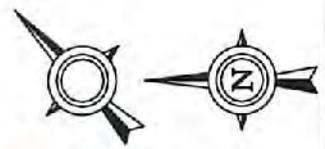
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FQ Helen	199 Bowersock Road		Reno	OH	45773	740-374-2940 412-443-4397 740-236-2135	Washington	OH	34-167-2-9577
FQ Dexter	38505 Marietta Rd.		Dexter City	OH	45727	740-374-2940 412-443-4397 740-236-2135	Noble	OH	34-121-24037 34-121-24086
FQ Ritchie	122 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.		Tridelphia	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

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SCALE: 1:500 PLOTTED: 07/27/2021 2:34 PM FILE: \\SERVER\FABING\DATA\WV AND GAS\EQ122020070-002 - VANDERBILT WELL SITE\CAD\K DRIVE\ - OHIO TO CLIENT\DWG\VANDERBILT_VW-9 EXHIBIT.DWG

REFERENCES: UNITED STATES GEOLOGICAL SURVEY - GLOVER GAP QUADRANGLE, STATE, 7.5 MINUTE SERIES



VW-9 EXHIBIT
made for
EQT PRODUCTION COMPANY
VANDERBILT WELL SITE
MARION COUNTY, WEST VIRGINIA
prepared by
DIEFFENBAUCH & HRTIZ, LLC
1095 Chaplin Rd Suite 200, Morgantown, WV 26501
Phone: 304-985-5555 Fax: 304-985-5557

NOTES:
All Coordinates are in NAD83.

The purpose of this Rec Diagram is for the location of existing and proposed gaswells. It does not represent well pad conditions, existing or proposed.

4704902509

PREVAILING WIND DIRECTION



DRILLING FLARE (IF NEEDED)

- 16H / L-003713
- 8H / L-003787
- 8H / L-003770
- 4H / L-003774
- 2H / L-003773

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LEGEND

-  = Compliance Well
-  = Existing Wells
-  = Future Wells
-  = Pad & Berm
-  = Access Road

REVISED BY:	DATE:
Chris Harmon	06/26/2021



Flare Map
Mannington Twp, Marion Co., WV
Scale: 1" = 40' 1 of 1

11/19/2021

4704902500

Topo Quad: Glover Gap Scale: 1" = 1000'

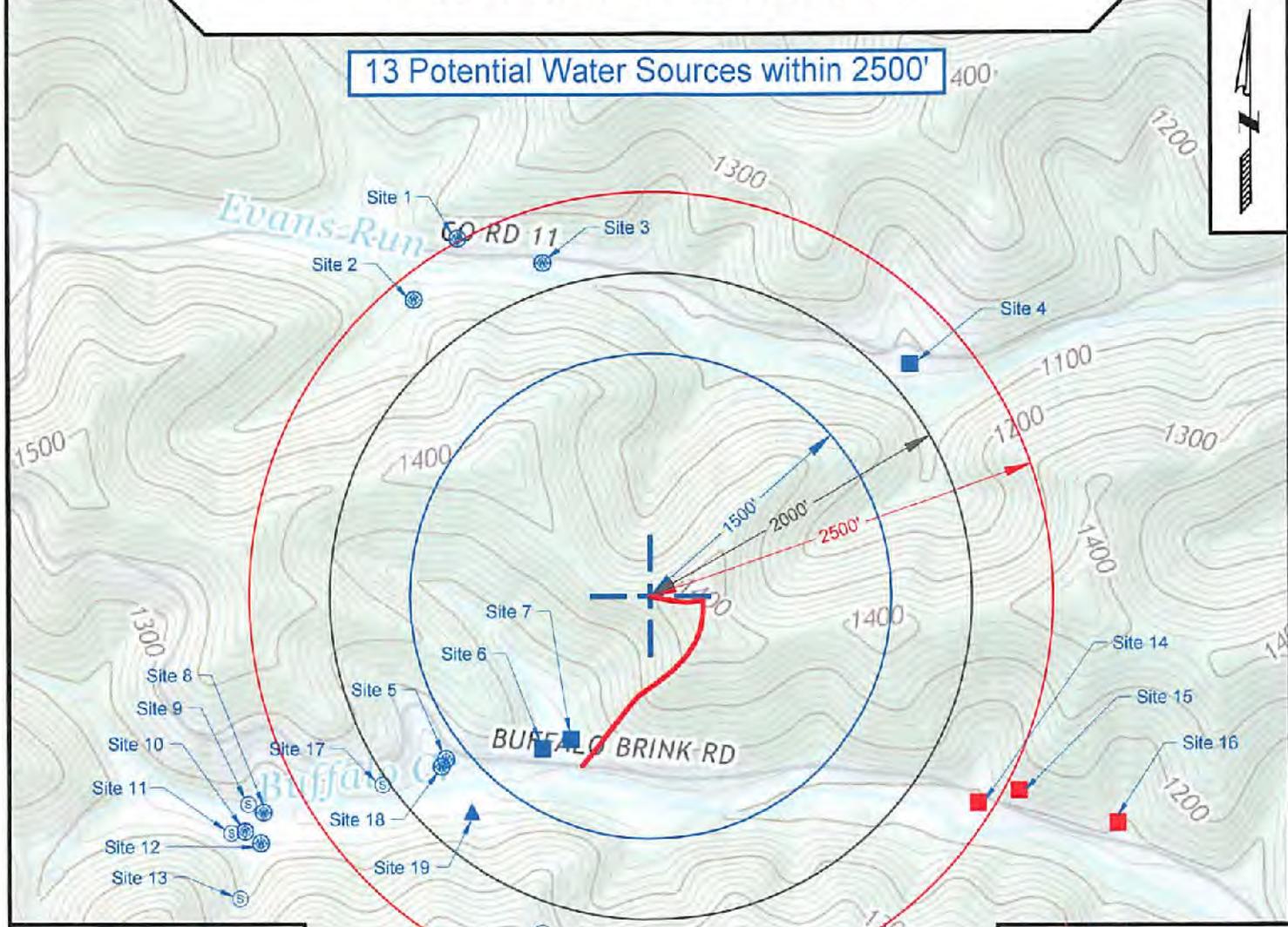
County: Marion Date: September 3, 2021

District: Mannington Project No: 93-18-M-21

Water

Vanderbilt South Well Pad

13 Potential Water Sources within 2500'



LEGEND

- Red Symbol - Declined Sampling
- Blue Symbol - Requested Sampling / Unable to Contact
- ⊗ - RECEIVED
- ⊙ - Office of Oil and Gas
- Ⓢ - Sampling
- ▲ - Paper
- - Building

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Sampling
Oct 12 2021
WV Department of Environmental Protection

NAD 27, North Zone
N: 382,865.28
E: 1,725,018.40

WGS 84
LAT: 39.547176
LONG: -80.474955
ELEV: 1,400.0'



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 237 Birch River Road
 Birch River, WV 26810
 PH: (304) 649-8606
 FAX: (304) 649-8608

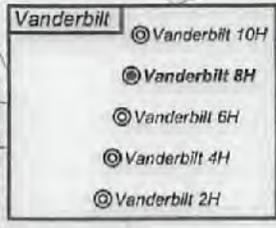
PREPARED FOR:
EQT Production Company
 400 Woodcliff Drive
 Canonsburg, PA 15317

11/19/2021

TH: 4715' LAT: 39-35-00
 BH: 4572' LAT: 39-35-00

**Vanderbilt 8H
 Vanderbilt
 EQT Production Company**

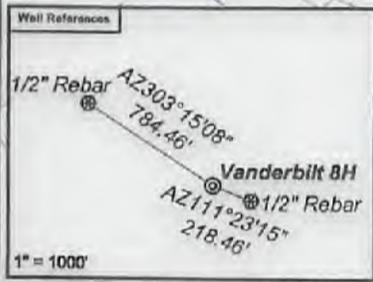
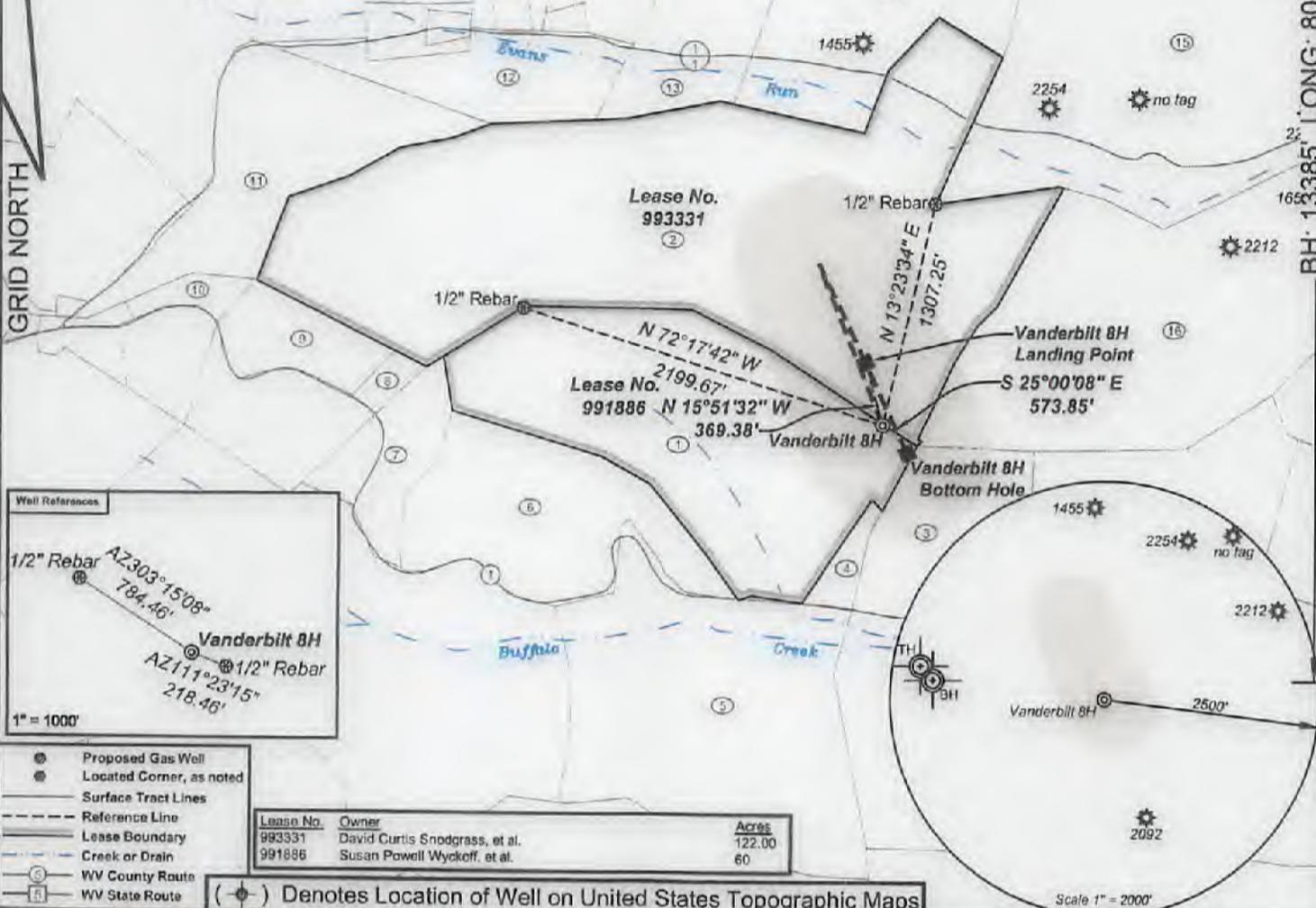
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	45	11	Marion	Mannington	Larry Higgins & Eva Higgins	60.00
2	45	17	Marion	Mannington	Allegheny Forestlands LLC	125.73
3	45	5	Marion	Mannington	Harry R. & Susanne M. Morris	52.00
4	45	12.1	Marion	Mannington	Jason E. & April M. Powell	2.49
5	45	4	Marion	Mannington	Ronald Powell, Sr.	59.82
6	45	12	Marion	Mannington	Jason E. & April M. Powell	37.50
7	45	13	Marion	Mannington	Thelma L. Coen	11.00
8	45	14.2	Marion	Mannington	Thelma L. Coen	1.60
9	45	14.1	Marion	Mannington	Patricia F. Powell	8.59
10	45	14.4	Marion	Mannington	Thomas A. & Karen J. Hixenbaugh	3.00
11	45	16	Marion	Mannington	Keith A. Powell	27.00
12	45	26	Marion	Mannington	John M. Proffitt, Sr.	14.60
13	45	25.1	Marion	Mannington	Richard K. & Dawn K. Jones	5.71
14	45	24	Marion	Mannington	Barbara E. Henderson, et al.	38.50
15	45	23	Marion	Mannington	Thomas L. Snodgrass	105.50
16	45	20	Marion	Mannington	Allegheny Forestlands LLC	78.50



Notes:
 Vanderbilt 8H coordinates are
 NAD 27 N: 382,844.29 E: 1,725,043.86
 NAD 27 Lat: 39.547035 Long: -80.475054
 NAD 83 UTM N: 4,377,625.50 E: 545,120.30
 Vanderbilt 8H Landing Point coordinates are
 NAD 27 N: 383,199.62 E: 1,724,942.92
 NAD 27 Lat: 39.548007 Long: -80.475425
 NAD 83 UTM N: 4,377,733.24 E: 545,097.75
 Vanderbilt 8H Bottom Hole coordinates are
 NAD 27 N: 382,679.55 E: 1,725,185.46
 NAD 27 Lat: 39.546587 Long: -80.474545
 NAD 83 UTM N: 4,377,576.03 E: 545,164.28
 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.

GRID NORTH

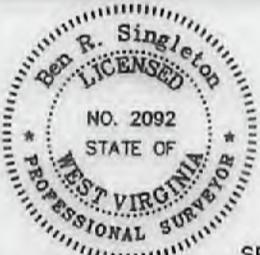
BH: 13385' LONG: 80-27-30
 TH: 13222' LONG: 80-27-30



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

Lease No.	Owner	Acres
993331	David Curtis Snodgrass, et al.	122.00
991886	Susan Powell Wyckoff, et al.	60

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



SEAL

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: 93-21
 DRAWING NO: Vanderbilt 8H
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: September 03 20 21
 OPERATOR'S WELL NO.: Vanderbilt 8H
 API WELL NO
 47 - 49 - 02509
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Existing: 1396.0' Proposed: 1356.8' WATERSHED: Evans Run & Buffalo Creek QUADRANGLE: Glover Gap
 DISTRICT: Mannington COUNTY: Marion
 SURFACE OWNER: Larry Higgins & Eva Higgins ACREAGE: 60
 ROYALTY OWNER: Susan Powell Wyckoff, et al. LEASE NO: 991886 ACREAGE: 60
 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: 7,700'

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

**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
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See Attachment

**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

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WW-6A1 attachment

Operator's Well No.

Vanderbilt 8H

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
<u>993331</u>	<u>David Curtis Snodgrass, et al.</u> David Curtis Snodgrass, a married man dealing in his sole and separate property	122.00	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	1268/863
<u>991886</u>	<u>Susan Powell Wyckoff, et al.</u> Susan Powell Wyckoff, married, dealing in her sole and separate property	60 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	1115/662

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4704902509

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EQT PRODUCTION COMPANY
400 Woodcliff Drive | Canonsburg, PA 15317

September 2, 2021

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

Re: Vanderbilt 8H Gas Well
Mannington District, Marion County, WV

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 'J. Zavatchan'.

John Zavatchan
Project Specialist - Permitting

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11/19/2021

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

Date of Notice Certification: 10/11/21

API No. 47- _____
Operator's Well No. ^{8H} _____
Well Pad Name: Vanderbilt

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>545120.30</u>
County:	<u>Marion</u>		Northing:	<u>4377625.50</u>
District:	<u>Mannington</u>	Public Road Access:		<u>CR-1</u>
Quadrangle:	<u>Glover Gap</u>	Generally used farm name:		<u>Vanderbilt (Larry Higgins & Eva Higgins)</u>
Watershed:	<u>Evans Run & Buffalo Creek</u>			

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

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: *PLEASE CHECK ALL THAT APPLY <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <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 <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		OOG OFFICE USE ONLY <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED <input checked="" type="checkbox"/> RECEIVED
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Required Attachments:

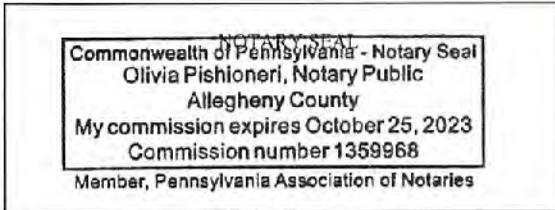
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

4704902509

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 11th day of October, 2021
[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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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WW-6A
(9-13)

API NO. 47- _____
OPERATOR WELL NO. 8H _____
Well Pad Name: Vanderbilt _____

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

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

Date of Notice: 10/11/21 **Date Permit Application Filed:** 10/11/21

Notice of:

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

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

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

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

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

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

COAL OWNER OR LESSEE
Name: See Attached List
Address: _____
 COAL OPERATOR
Name: See Attached List
Address: _____

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

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

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

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

*Please attach additional forms if necessary

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(8-13)

API NO. 47-
OPERATOR WELL NO. 8H
Well Pad Name: Vanderbilt

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 and qualified to test water supplies in accordance with standard acceptable methods.

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

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Well Location Restrictions

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

WW-6A
(8-13)

API NO. 47-4704902509
OPERATOR WELL NO. 8H
Well Pad Name: Vanderbilt

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

11/19/2021

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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WW-6A
(8-13)

API NO. 47- _____
OPERATOR WELL NO. 8H _____
Well Pad Name: Vanderbilt

Notice is hereby given by:

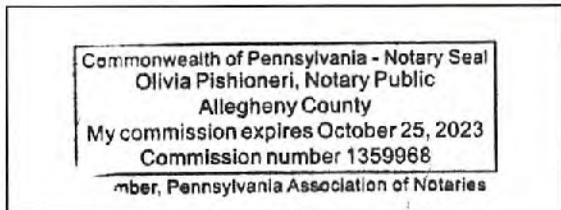
Well Operator: EQT Production Company
Telephone: 724-746-9073
Email: jzavatchan@eqt.com



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 11th day of October, 2021.



Notary Public

My Commission Expires October 25, 2023

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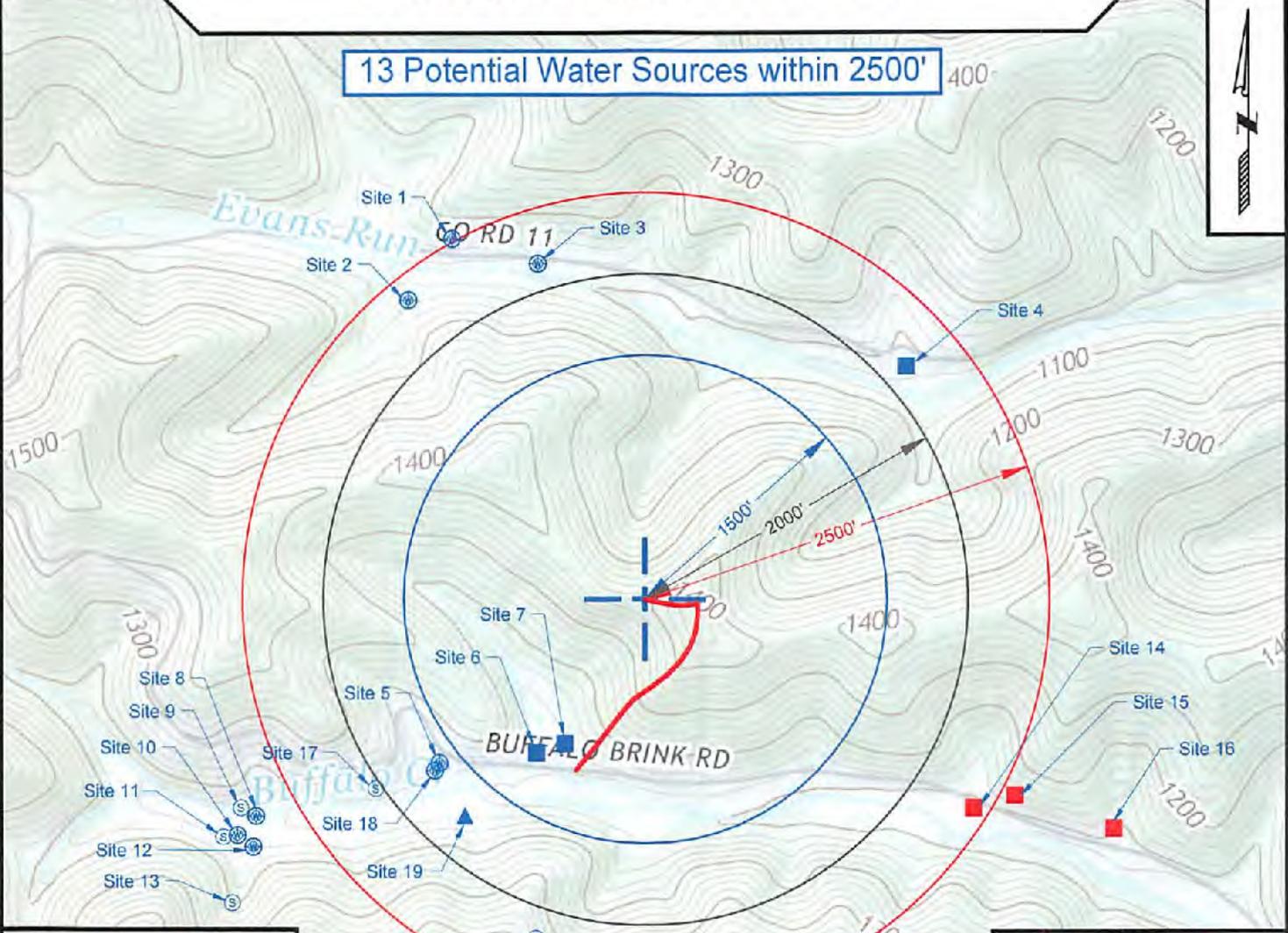
11/19/2021

Topo Quad: Glover Gap Scale: 1" = 1000'
 County: Marion Date: September 3, 2021
 District: Mannington Project No: 93-18-M-21

Water

Vanderbilt South Well Pad

13 Potential Water Sources within 2500'



LEGEND

Red Symbol - Declined Sampling
 Blue Symbol - Requested Sampling / Unable to Contact

- Well
- Spring
- Pond
- Building

NAD 27, North Zone
N: 382,865.28
E: 1,725,018.40

WGS 84
LAT: 39.547176
LONG: -80.474955
ELEV: 1,400.0'

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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
 400 Woodcliff Drive
 Canonsburg, PA 15317

11/19/2021



Table 1 – Water Source Identification

EQT Well Pad Name: **Vanderbilt South**

Submittal Date: **September 3, 2021**

EQT Well Number: _____

Survey / Engineering Company: **Allegheny Surveys, Inc.**

Site Number: **1** Distance from Gas Well (feet): **2515 ±**

Surface Owner / Occupant: **Kenneth & Jennifer Jones**

Address: **526 Evans Run Rd. Mannington WV 26582** Phone# **304-365-2940** (Jennifer)

Field Located Date: **7-22-2021** Owner home during survey (yes/no): _____

Coordinates: **39.553216, -80.479283** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-02-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Water well** next to building left of driveway. Kenneth: 304-657-0205

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

Site Number: **2** Distance from Gas Well (feet): **2351 ±**

Surface Owner / Occupant: **Richard & Dawn Jones**

Address: **545 Evans Run Rd. Mannington WV 26582** Phone #: **304-986-2648**

Field Located Date: **7-22-2021** Owner home during survey (yes/no): _____

Coordinates: **39.552174, -80.480231** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-02-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Water well** in front yard of mobile home. Well casing has decorative cover.

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

Site Number: **3** Distance from Gas Well (feet): **2166 ±**

Surface Owner / Occupant: **June Wilson, Barbara Henderson, Diana Tyler**

Address: **905 E First St. Mannington WV 26582** Phone #: **304-986-7546**

Field Located Date: **7-22-2021** Owner home during survey (yes/no): _____

Coordinates: **39.552816, -80.477392** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Water well** located beside old satellite dish and small pumphouse of old homesite. Mailbox marked "481".

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

(Insert additional pages as needed)

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Site Number: 4 Distance from Gas Well (feet): 2155 ±

Surface Owner / Occupant: Thomas Snodgrass

Address: 291 Evans Run Rd. Mannington WV 26582 Phone #: _____

Field Located Date: _____ Owner home during survey (yes/no): No

Coordinates: 39.551144, -80.469279 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: Yes

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. No further contact.

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

Site Number: 5 Distance from Gas Well (feet): 1627 ±

Surface Owner / Occupant: Ronald Powell Sr - c/o Ronald Powell Jr

Address: 218 Chestnut Ave. Mannington WV 26582
Phone#: 304-986-2741 / Cel#: 304-612-8812

Field Located Date: 7-22-2021 Owner home during survey (yes/no): No

Coordinates: 39.544373, -80.479450 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: Yes

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. Water well beside house. Ronald Powell Jr. called on 7-26-2021 wanting testing. Had additional sources (Sites 17 through 21).

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

Site Number: 6 Distance from Gas Well (feet): 1158 ±

Surface Owner / Occupant: Larry Higgins & Eva Higgins

Address: 3418 Buffalo Brink Rd. Mannington WV 26582 Phone #: _____

Field Located Date: _____ Owner home during survey (yes/no): No

Coordinates: 39.544564, -80.477318 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: Yes.

Comments: House. Doorhanger left. Mobile home next door appears to be unoccupied.

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

Site Number: 7 Distance from Gas Well (feet): 1017 ±

Surface Owner / Occupant: Larry Higgins & Eva Higgins

Address: 3418 Buffalo Brink Rd. Mannington WV 26582 Phone #: _____

Field Located Date: _____ Owner home during survey (yes/no): No

Coordinates: 39.544730, -80.476696 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: _____

Comments: Mobile home - appears to be unoccupied.

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

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Site Number: 8 Distance from Gas Well (feet): 2758 ±

Surface Owner / Occupant: Louis & Donna Hillberry

Address: 3585 Buffalo Brink Rd. Mannington WV 26582 Phone #: 304-986-1247

Field Located Date: 7-22-2021 Owner home during survey (yes/no): Yes

Coordinates: 39.543442, -80.483464 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: _____

Comments: Water well in front of barn. (Has 3 water wells and 3 springs – Site Numbers 8-13)

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

Site Number: 9 Distance from Gas Well (feet): 2816 ±

Surface Owner / Occupant: Louis & Donna Hillberry

Address: 3585 Buffalo Brink Rd. Mannington WV 26582 Phone #: 304-986-1247

Field Located Date: 7-22-2021 Owner home during survey (yes/no): Yes

Coordinates: 39.543577, -80.483797 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: _____

Comments: Spring used for cattle. (Has 3 water wells and 3 springs – Site Numbers 8-13)

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

Site Number: 10 Distance from Gas Well (feet): 2917 ±

Surface Owner / Occupant: Louis & Donna Hillberry

Address: 3585 Buffalo Brink Rd. Mannington WV 26582 Phone #: 304-986-1247

Field Located Date: 7-22-2021 Owner home during survey (yes/no): Yes

Coordinates: 39.543111, -80.483870 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: _____

Comments: Water well next to son's house. (Has 3 water wells and 3 springs – Site Numbers 8-13)

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

Site Number: 11 Distance from Gas Well (feet): 2997 ±

Surface Owner / Occupant: Louis & Donna Hillberry

Address: 3585 Buffalo Brink Rd. Mannington WV 26582 Phone #: 304-986-1247

Field Located Date: 7-22-2021 Owner home during survey (yes/no): Yes

Coordinates: 39.543082, -80.484175 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: _____

Comments: Spring used for cattle. (Has 3 water wells and 3 springs – Site Numbers 8-13)

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

Site Number: 12 Distance from Gas Well (feet): 2869 ±

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Surface Owner / Occupant: **Louis & Donna Hillberry**

Address: **3585 Buffalo Brink Rd. Mannington WV 26582** Phone #: **304-986-1247**

Field Located Date: **7-22-2021** Owner home during survey (yes/no): **Yes**

Coordinates: **39.542917, -80.483516** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Water well** beside Mr. & Mrs. Hillberry's house. (Has 3 water wells and 3 springs – Site Numbers 8-13)

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

Site Number: **13** Distance from Gas Well (feet): **3171 ±**

Surface Owner / Occupant: **Louis & Donna Hillberry**

Address: **3585 Buffalo Brink Rd. Mannington WV 26582** Phone #: **304-986-1247**

Field Located Date: **7-22-2021** Owner home during survey (yes/no): **Yes**

Coordinates: **39.541968, -80.483968** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Spring** used for cattle. (Has 3 water wells and 3 springs – Site Numbers 8-13)

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

Site Number: **14** Distance from Gas Well (feet): **2401 ±**

Surface Owner / Occupant: **Barron Powell**

Address: **3140 Buffalo Brink Rd. Mannington WV 26582** Phone #: **304-986-1450**

Field Located Date: _____ Owner home during survey (yes/no): **Yes**

Coordinates: **39.543721, -80.467692** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Barn**. Spoke to Mr. Powell during field visit 7-22-2021. Said he uses public water source and declines any testing.

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

Site Number: **15** Distance from Gas Well (feet): **2583 ±**

Surface Owner / Occupant: **Barron Powell**

Address: **3140 Buffalo Brink Rd. Mannington WV 26582** Phone #: **304-986-1450**

Field Located Date: _____ Owner home during survey (yes/no): **Yes**

Coordinates: **39.543941, -80.466804** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: _____

Comments: **Rental house**. Spoke to Mr. Powell during field visit 7-22-2021. Said he uses public water source and declines any testing.

Site Number: **16** Distance from Gas Well (feet): **3222 ±**

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

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Surface Owner / Occupant: **Barron Powell**

Address: **3140 Buffalo Brink Rd. Mannington WV 26582** Phone #: **304-986-1450**

Field Located Date: _____ Owner home during survey (yes/no): **Yes**

Coordinates: **39.543405, -80.464619** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: _____

Comments: **House.** Spoke to Mr. Powell during field visit 7-22-2021. Said he uses public water source and declines any testing.

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

Site Number: **17** Distance from Gas Well (feet): **1991 ±**

Surface Owner / Occupant: **Ronald Powell Sr - c/o Ronald Powell Jr**

Address: **218 Chestnut Ave. Mannington WV 26582**
Phone#: **304-986-2741 / Cel#: 304-612-8812**

Field Located Date: **9-3-2021** Owner home during survey (yes/no): **No**

Coordinates: **39.544237, -80.480910** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: **Yes**

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. **Spring near main road.** Ronald Powell Jr. called on 7-26-2021 wanting testing. Had additional sources (Sites 5 & 17 through 21).

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

Site Number: **18** Distance from Gas Well (feet): **1709 ±**

Surface Owner / Occupant: **Ronald Powell Sr - c/o Ronald Powell Jr**

Address: **218 Chestnut Ave. Mannington WV 26582**
Phone#: **304-986-2741 / Cel#: 304-612-8812**

Field Located Date: **9-3-2021** Owner home during survey (yes/no): **No**

Coordinates: **39.544244, -80.479546** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **7-2-2021** 2nd: _____ Door Hanger Left: **Yes**

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. **Hand-dug Water well – beside house.** Ronald Powell Jr. called on 7-26-2021 wanting testing. Had additional sources (Sites 5 & 17 through 21).

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

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Site Number: 19 Distance from Gas Well (feet): 1696 ±

Surface Owner / Occupant: Ronald Powell Sr - c/o Ronald Powell Jr

Address: 218 Chestnut Ave. Mannington WV 26582
Phone#: 304-986-2741 / Cel#: 304-612-8812

Field Located Date: 9-3-2021 Owner home during survey (yes/no): No

Coordinates: 39.543515, -80.478681 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: Yes

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. Pond. Ronald Powell Jr. called on 7-26-2021 wanting testing. Had additional sources (Sites 17 through 21).

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

Site Number: 20 Distance from Gas Well (feet): 2211 ±

Surface Owner / Occupant: Ronald Powell Sr - c/o Ronald Powell Jr

Address: 218 Chestnut Ave. Mannington WV 26582
Phone#: 304-986-2741 / Cel#: 304-612-8812

Field Located Date: 9-3-2021 Owner home during survey (yes/no): No

Coordinates: 39.541436, -80.477285 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: Yes

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. Spring on hill with tub for basin. Ronald Powell Jr. called on 7-26-2021 wanting testing. Had additional sources (Sites 17 through 21).

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

Site Number: 21 Distance from Gas Well (feet): 2248 ±

Surface Owner / Occupant: Ronald Powell Sr - c/o Ronald Powell Jr

Address: 218 Chestnut Ave. Mannington WV 26582
Phone#: 304-986-2741 / Cel#: 304-612-8812

Field Located Date: 9-3-2021 Owner home during survey (yes/no): No

Coordinates: 39.541054, -80.475978 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 7-2-2021 2nd: _____ Door Hanger Left: Yes

Comments: Certified sent 7-2-2021. Field visit 7-22-2021. Doorhanger left. Spring on hill with tub for basin. Ronald Powell Jr. called on 7-26-2021 wanting testing. Had additional sources (Sites 17 through 21).

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

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Vanderbilt

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Surface Owners (All Disturbance):

- Thomas A. Hixenbaugh and Karen J. Hixenbaugh ✓

P.O. Box 77

Barrackville, WV 26559

- Keith Powell ✓

3898 Buffalo Brink Road

Mannington, WV 26582

- Patricia F. Powell ✓

3790 Buffalo Brink Road

Mannington, WV 26582

- Thelma Coen ✓

3734 Buffalo Brink Road

Mannington, WV 26582

- Larry Higgins and Eva Higgins ✓

3418 Buffalo Brink Road

Mannington, WV 26582

Water Supply Owners within 1,500': ✓

- Larry Higgins and Eva Higgins

3418 Buffalo Brink Road

Mannington, WV 26582

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Coal Owners:

- MINCO I, Inc. ✓
C/O Consolidation Coal
1000 Consol Energy Drive
Canonsburg, PA 15317 ✓
- Larry Higgins and Eva Higgins

3418 Buffalo Brink Road

Mannington, WV 26582
- Susan Powell Wyckoff ✓
PO Box 751
Granville, WV 26534
- Jennifer Lynn Huey ✓
111 Ridgewood Road
Fairmont, WV 26554
- Jefry Louis Huey ✓
111 Ridgewood Road
Fairmont, WV 26554
- Kenneth R. Minor ✓
143 Ices Run Road
Fairmont, WV 26554
- John D. Minor ✓
2900 Patrie Place
Raleigh, NC 27613
- Cathy A. Fridley ✓
28 Edencourt Lane
Fairmont, WV 26554

Coal Operator:

- ACNR Resources, Inc. ✓
46226 National Road
St. Clairsville, OH 43950

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

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

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 07/22/2021 **Date Permit Application Filed:** 10/11/2021

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

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

Name: See Attachment
Address: _____

Name: Larry Higgins and Eva Higgins
Address: 3418 Buffalo Brink Road
Mannington, WV 26052

Notice is hereby given:

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>545120.30</u>
County:	<u>Marion</u>		Northing:	<u>4377625.50</u>
District:	<u>Mannington</u>	Public Road Access:	<u>CR-1</u>	
Quadrangle:	<u>Glover Gap</u>	Generally used farm name:	<u>Vanderbilt</u>	
Watershed:	<u>Evans Run & Buffalo Creek</u>			

This Notice Shall Include:

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

Notice is hereby given by:

Well Operator: EQT Production Company
Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: JZavatchan@eqt.com
Facsimile: 412-395-2974

Authorized Representative: John Zavatchan
Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: JZavatchan@eqt.com
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.

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

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

Date of Notice: 10/08/2021 Date Permit Application Filed: 10/11/2021

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

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

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

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Larry Higgins & Eva Higgins	Name: _____
Address: 3418 Buffalo Brink Road Mannington, WV 26582	Address: _____

Notice is hereby given:

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

State: West Virginia	UTM NAD 83 Easting: 545120.30
County: Marion	UTM NAD 83 Northing: 4377625.50
District: Mannington	Public Road Access: CR-1
Quadrangle: Glover Gap	Generally used farm name: Vanderbilt (Larry D. & Trisha B. Higgins)
Watershed: Evans Run & Buffalo Creek	

This Notice Shall Include:

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

Well Operator: EQT Production Company	Address: 400 Woodcliff Drive
Telephone: 724-746-9073	Canonsburg, PA 15317
Email: jzavatchan@eqt.com	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.

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

D. Alan Reed, P.E.
State Highway Engineer

Jimmy Wriston, P. E.
Secretary of Transportation
Commissioner of Highways

October 8, 2021

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 Vanderbilt Pad, Marion County
Vanderbilt 8H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2021-0331 which has been issued to EQT Production Company for access to the State Road for a well site located off Marion County Route 1 SLS MP 0.178.

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. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

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

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Office of Oil and Gas

OCT. 12 2021

WV Department of
Environmental Protection

Cc: Olivia Wilson
EQT Production Company
CH, OM, D-4
File

4704902509

**Anticipated Frac Additives
Chemical Names and CAS Numbers**

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
Sand (Proppant)	Silica Substrate	14808-60-7
Water	Water	7732-18-5
Hydrochloric Acid (HCl)	Hydrogen Chloride	7647-01-0
Friction Reducer	Copolymer of 2-propenamide	Proprietary
	Petroleum Distillate	64742-47-8
	Oleic Acid Diethanolamide	93-83-4
	Alcohols, C12-16, ethoxylated	68551-12-2
	Ammonium chloride ((NH4)Cl)	12125-02-9
Biocide	Glutaraldehyde	111-30-8
	Alkyl dimethyl benzyl ammonium chloride	68391-01-5
	Didecyl dimethyl ammonium chloride	7173-51-5
	Non-hazardous substances	Proprietary
Scale Control	Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid))(BHMT)	34690-00-1
	Non-hazardous substances	Proprietary
Acid Chelating Agent	Citric Acid	77-92-9
Corrosion Inhibitor	Methanol	67-56-1
	pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	68909-18-2
	Nonoxynol-9	127087-87-0
	2-ethyl-1-hexanol	104-76-7
	4-nonylphenyl, ethoxylated	26027-38-3

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OCT. 12 2021

WV Department of
Environmental Protection

11/19/2021

EROSION & SEDIMENT CONTROL PLAN

Diagen Ham
8-31-21

APPROVED
WVDEP OOG
[Signature] 11/10/2021

VANDERBILT WELL SITE MARION COUNTY, WEST VIRGINIA FOR

EQT PRODUCTION COMPANY

WELL IDENTIFICATION	LA (1) NA (2) D (3)	CON (4) N (5) R (6)	W (7) OR (8) H (9) OR (10) A (11) D (12)	E (13) A (14) S (15) T (16) I (17) N (18) G (19) E (20) R (21) A (22) D (23)	N (24) O (25) R (26) T (27) H (28) I (29) N (30) G (31) E (32) R (33) A (34) D (35)	E (36) A (37) S (38) T (39) I (40) N (41) G (42) R (43) A (44) D (45)	E (46) A (47) S (48) T (49) I (50) N (51) G (52) R (53) A (54) D (55)
201	25 5400P	80 4787S	32 255 200	1 07104 813	30 280 956	32 5088 790	
401	25 5420P	80 4787S	32 255 200	1 07104 813	30 280 956	32 5088 790	
404	25 5420P	80 4787S	32 255 200	1 07104 813	30 280 956	32 5088 790	
404	25 5421P	80 4787S	32 255 200	1 07104 813	30 280 956	32 5088 790	
209	25 5471P	80 4787S	32 255 200	1 07104 813	30 280 956	32 5088 790	

LANDOWNER	LANDOWNER'S DISTURBANCE BREAKDOWN			
	DISTURBANCE FROM ACCESS ROAD	DISTURBANCE FROM WELL PAD	DISTURBANCE FROM STOCKPILES	TOTAL DISTURBANCE
24-12-0045-0010-0000 ALLEGHANY FORESTLANDS, LLC	N/A	0.23 AC	NA	0.23 AC
24-12-0045-0012-0000 ALLEGHANY FORESTLANDS, LLC	9.79 AC	2.75 AC	13.31 AC	25.83 AC
24-12-0045-0015-0000 POWELL KEITH HA & RITA G	4.85 AC	NA	3.97 AC	8.82 AC
24-12-0045-0016-0000 DIEFFENBAUGH THOMAS A & KAREN J	1.15 AC	NA	NA	1.15 AC
24-12-0045-0014-0001 POWELL PATRICIA F	2.47 AC	NA	NA	2.47 AC
24-12-0045-0018-0002 COSENTI LIMA L	0.43 AC	NA	NA	0.43 AC
24-12-0045-0013-0000 COSENTI LIMA L	0.34 AC	NA	NA	0.34 AC
24-12-0045-0011-0000 HOOKS LARRY D & LORELEI	11.91 AC	5.45 AC	0.13 AC	17.49 AC
WVDOZ RIGHT OF WAY	0.03 AC	NA	NA	0.03 AC

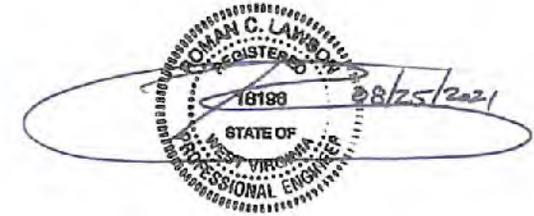


REFERENCES: UNITED STATES GEOLOGICAL SURVEY - BIG RUN & CLOVER GAP QUADRANGLES, WV, 7.5 MINUTE SERIES



PROJECT NO. 20070-002
AUGUST 2021

DIEFFENBAUCH & HRITZ, LLC



INDEX	
DRAWING NO.	TITLE
1	TITLE SHEET
2	GENERAL NOTES
3	EXISTING SITE PLAN
4	OVERALL EAS SITE PLAN
5A	PROPOSED SITE PLAN
9	OVERALL EAS REVEGETATION SITE PLAN
10	OVERALL SITE RESTORATION PLAN
11	SOIL MAP
12-14A	ACCESS ROAD PROFILE
15-17	ACCESS ROAD SECTION VIEWS
42-48A	EAS TYPICAL SECTIONS
49-53	EAS DETAILS

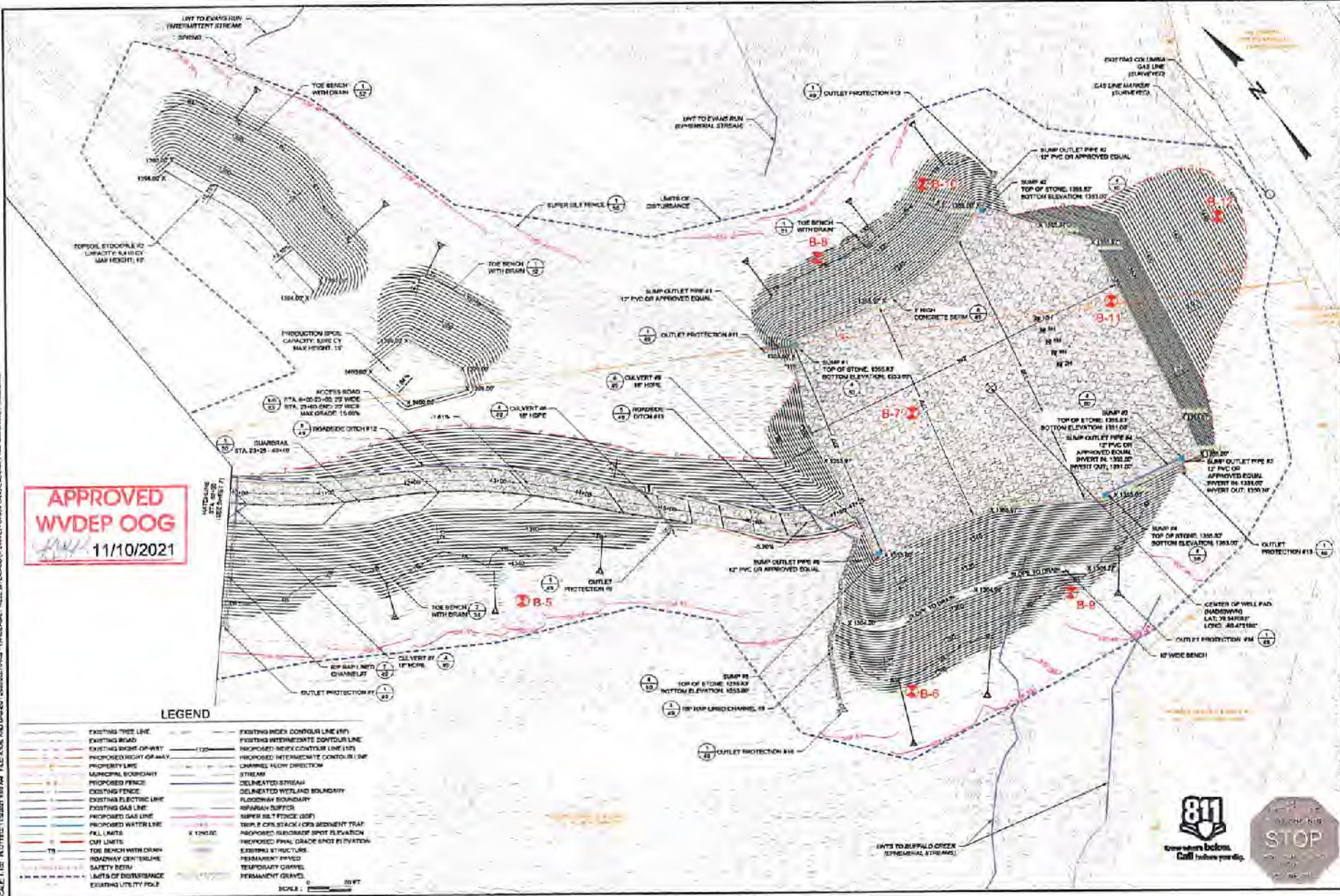


4704902509

PROJECT: VANDERBILT WELL SITE, MARION COUNTY, WV
 CLIENT: EQT PRODUCTION COMPANY
 DRAWING NO.: 1
 DATE: AUGUST 2021
 PROJECT NO.: 20070-002
 SCALE: AS SHOWN
 SHEET NO.: 1 OF 1
 DESIGNER: ROMAN C. LAWSON, REGISTERED PROFESSIONAL ENGINEER, STATE OF WEST VIRGINIA, LICENSE NO. 18188
 CHECKED: [Signature]
 DATE: 8/25/2021
 FIRM: DIEFFENBAUCH & HRITZ, LLC, 1000 CHERRY PARK, SUITE 200, MARTINSBURG, WV 26151, PHONE: 304.263.3333, FAX: 304.263.3337

SCALE: 1"=40' PLotted: 11/20/2021 9:58 AM FILE: X:\06_1402\0612021-001 - VANDERBILT WELL SITE\CDR\DWG\PRODUCTION COMPANY\PROPOSED SITE PLAN.dwg

APPROVED
WVDEP OOG
11/10/2021



LEGEND

EXISTING TREE LINE	EXISTING INDEX CONTOUR LINE (10')
EXISTING ROAD	EXISTING INTERMEDIATE CONTOUR LINE
EXISTING RIGHT-OF-WAY	PROPOSED NEW CONTOUR LINE (10')
PROPOSED RIGHT-OF-WAY	PROPOSED INTERMEDIATE CONTOUR LINE
PROPERTY LINE	CHANNEL FLOW DIRECTION
MUNICIPAL BOUNDARY	STREAM
PROPOSED FENCE	DELMITED STREAM
EXISTING FENCE	DELMITED WETLAND BOUNDARY
EXISTING ELECTRIC LINE	FLOODWAY BOUNDARY
EXISTING GAS LINE	SPRINKLER SUPPLY
PROPOSED GAS LINE	SWP# 85.7 FENCE (SWP)
PROPOSED WATER LINE	TOP # CIP STACK / CIP JUNCTION TRAP
FILL LIMITS	PROPOSED REBARBED SPOT ELEVATION
CUT LIMITS	PROPOSED FINAL GRADE SPOT ELEVATION
TS TOE BENCH WITH DRAIN	EXISTING STRUCTURE
ROADWAY CENTERLINE	PERMANENT PAVED
SAFETY BERM	TEMPORARY GRAVEL
LIMITS OF DISTURBANCE	PERMANENT GRAVEL
EXISTING UTILITY POLE	



PROJECT NO.	2021-001
DATE	11/10/2021
SCALE	1"=40'
DRAWN BY	J. H. H. / J. H. H.
CHECKED BY	J. H. H. / J. H. H.
IN CHARGE	J. H. H. / J. H. H.
DATE	11/10/2021
PROJECT NO.	2021-001
PROJECT NAME	VANDERVELT WELL SITE
CLIENT	EGT PRODUCTION COMPANY
LOCATION	MARION COUNTY, WV
DATE	11/10/2021
SCALE	1"=40'
DRAWN BY	J. H. H. / J. H. H.
CHECKED BY	J. H. H. / J. H. H.
IN CHARGE	J. H. H. / J. H. H.
DATE	11/10/2021

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