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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, April 8, 2024  
WELL WORK PERMIT  
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY  
400 WOODCLIFF DR.

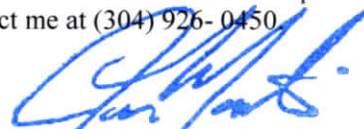
CANONSBURG, PA 15317

Re: Permit approval for VANDERBILT 10H  
47-049-02538-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.



James A. Martin  
Chief

Operator's Well Number: VANDERBILT 10H  
Farm Name: LARRY AND TRISHA HIGGINSON  
U.S. WELL NUMBER: 47-049-02538-00-00  
Horizontal 6A New Drill  
Date Issued: 4/8/2024

Promoting a healthy environment.

04/12/2024

# PERMIT CONDITIONS

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

## CONDITIONS

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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. 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. Also, 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.
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.

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: 10H Well Pad Name: Vanderbilt

3) Farm Name/Surface Owner: EQT Production Company Public Road Access: CR-1

4) Elevation, current ground: 1,357' (built) Elevation, proposed post-construction: 1,357' (built)

5) Well Type (a) Gas  Oil  Underground Storage

Other

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7,735', 56', 2,620 psi

8) Proposed Total Vertical Depth: 7,735'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 11,040'

11) Proposed Horizontal Leg Length: 2,543'

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

13) Method to Determine Fresh Water Depths: Offset Wells - 049-01784, 049-30593, 049-30230

14) Approximate Saltwater Depths: N/A

15) Approximate Coal Seam Depths: 1,181'-1,188'

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

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

(a) If Yes, provide Mine Info: Name: Harrison County Mine

Depth: 1,181'-1,188'

Seam: Pittsburgh

Owner: Harrison County Coal Resources, Inc.

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Environmental Protection

4704902538

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_ - \_\_\_\_\_  
 OPERATOR WELL NO. <sup>10H</sup> \_\_\_\_\_  
 Well Pad Name: Vanderbilt

18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	26	New	A252	85.6	53	53	45 ft <sup>3</sup> / CTS
Fresh Water	13 3/8	New	J-55	54.5	1238	1238	1135 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2685	2685	1035 ft <sup>3</sup> / CTS
Production	6	New	P-110	24	11040	11040	500' above intermediate casing
Tubing							
Liners							

<b>TYPE</b>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	26	30	0.312	1000	18	Class A/L	1.04 - 1.20
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A/L	1.04 - 1.20
Coal							
Intermediate	9 5/8	12 3/8 - 12 1/4	0.352	3520	2816	Class A/H/L	1.04 - 1.20
Production	6	8 3/4 - 8 1/2	0.400	14580	11664	Class A/H/L	1.04 - 2.10
Tubing							
Liners							

*K7 Wellbore*  
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 2/23/24

**PACKERS**

FEB 23 2024

WV Department of  
 Environmental Protection

Kind:			
Sizes:			
Depths Set:			



4704902538

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

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WV Department of  
Environmental Protection

February 5, 2024

**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:

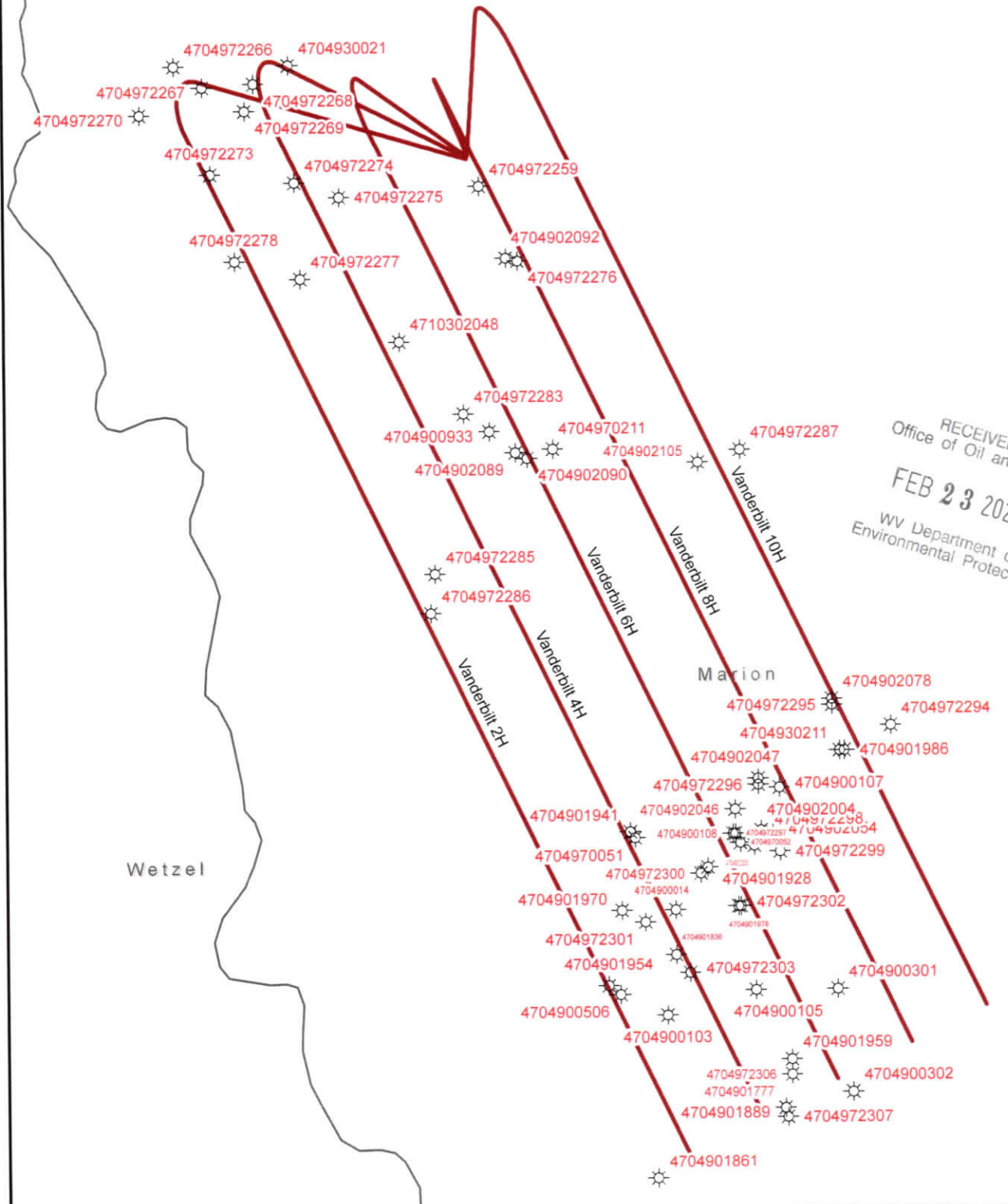
1. Inspect their surface equipment prior to fracturing to establish integrity and establish pre-frac well conditions
2. Observe wells closely during and after fracturing and monitor for abnormal increases in water, gas or pressure
3. Inspect or install master valves or other necessary equipment for wellhead 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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Wetzel

Marion



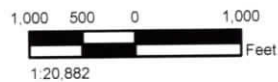
EQT Corporation  
625 Liberty Avenue  
Pittsburgh, PA 15222

Vanderbilt South

Vertical Offsets and  
Foreign Laterals  
within 500 Feet

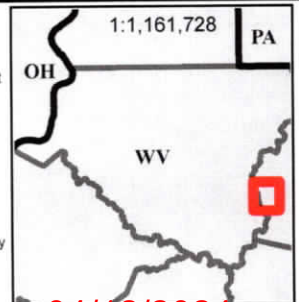
Legend

- Well Lateral\_FM
- Formation
  - Geneseo
  - Marcellus
  - Utica
- Vanderbilt\_Offset\_Wells



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.



04/12/2024



APL_UWL_10	APL_UWL_12	ENVOperato	ENVWellSta	ENVWellTyp	InitialOpe	Latitude	Longitude	ElevationG	ElevationK	MD_FT	TVD_FT	WellName	WellSymbol
4704900108	47-049-00108-00	CONSOLIDATION COAL COMPANY	P & A	WATER	CONSOLIDATION COAL COMPANY	39.524593	-80.463949	1179	1188	3130	3130	CUNNINGHAM, W N 6	WATER-P & A
4704972301	47-049-72301-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.521722	-80.467699	1350	0	0	0	ORA HUEY	UNREPORTED-UNREPORTED
4704972297	47-049-72297-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.524625	-80.463764	1184	0	0	0	ORA HUEY	UNREPORTED-UNREPORTED
4704902092	47-049-02092-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.543982	-80.473277	1109	1118	0	0	MORRIS, HARRY R. 5455	OTHER-P & A
4704900302	47-049-00302-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.516031	-80.458945	1195	1204	1535	1535	MARION COUNTY COMMISSION 5409	OTHER-P & A
4704900105	47-049-00105-00	CONSOLIDATION COAL COMPANY	P & A	GAS	CONSOLIDATION COAL COMPANY	39.519374	-80.463039	1252	1261	3188	3188	MARION COUNTY COMMISSION 5424	GAS-P & A
4710302048	47-103-02048-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.540099	-80.477871	1375	1384	0	0	CONSOLIDATION COAL 6387	OTHER-P & A
4704901861	47-049-01861-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.513235	-80.467296	1104	1113	0	0	MARCOZZI, DEBRA 5413	OTHER-P & A
4704972277	47-049-72277-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.543069	-80.482123	1148	0	0	0	Z D KENDALL	UNREPORTED-UNREPORTED
4704901978	47-049-01978-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.522208	-80.46365	1077	1086	0	0	MARION COUNTY COMMISSION 5432	OTHER-P & A
4704901777	47-049-01777-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.515485	-80.461751	1195	1204	0	0	MARION COUNTY COMM. 5410	OTHER-P & A
4704972278	47-049-72278-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.54365	-80.484933	1156	0	0	0	Z D KENDALL	UNREPORTED-UNREPORTED
4704972270	47-049-72270-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.548584	-80.488867	1411	0	0	0	M KENDALL	UNREPORTED-UNREPORTED
4704972269	47-049-72269-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.548729	-80.484371	1358	0	0	0	J L TOOTHMAN	UNREPORTED-UNREPORTED
4704970051	47-049-70051-00	SOUTH PENN OIL (S. PENN NAT. GAS)	UNREPORTED	UNREPORTED SOUTH PENN OIL (S. PENN NAT GAS)	UNREPORTED	39.524495	-80.468068	1079	0	0	0	W N CUNNINGHAM	UNREPORTED-UNREPORTED
4704972274	47-049-72274-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.546262	-80.48231	1331	0	0	0	J M MCCULLOUGH	UNREPORTED-UNREPORTED
4704972286	47-049-72286-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.532026	-80.47669	1238	0	0	0	S R ARNETT	UNREPORTED-UNREPORTED
4704972307	47-049-72307-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.515191	-80.461705	1174	0	0	0	HOWARD BRUMMAGE	UNREPORTED-UNREPORTED
4704970052	47-049-70052-00	(N/A)	COMPLETED	OIL (N/A)	COMPLETED	39.52435	-80.463574	1075	0	0	0	3013 4	OIL-COMPLETED
4704900301	47-049-00301-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.519402	-80.459493	1044	1053	2341	2341	MARION COUNTY COMM. 5423	OTHER-P & A
4704902005	47-049-02005-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.52421	-80.462996	1081	1090	0	0	MARION COUNTY COMMISSION 5435	OTHER-P & A
4704900103	47-049-00103-00	CONSOLIDATION COAL COMPANY	P & A	WATER	CONSOLIDATION COAL COMPANY	39.518589	-80.468793	1352	1361	3369	3369	DEBERRY, EDMOND 5425	WATER-P & A
4704901970	47-049-01970-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.52208	-80.468651	1355	1364	0	0	MARION COUNTY COMMISSION 5431	OTHER-P & A
4704930021	47-049-30021-00	SOUTHERN OIL, LLC	COMPLETED	UNREPORTED SOUTHERN OIL	COMPLETED	39.55021	-80.482493	1215	0	0	0	JOHN CAMPBELL 3	UNREPORTED-COMPLETED
4704972283	47-049-72283-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.538558	-80.475192	1227	0	0	0	S R ARNETT	UNREPORTED-UNREPORTED
4704930211	47-049-30211-00	CARNEGIE NATURAL GAS CO	UNREPORTED	UNREPORTED CARNEGIE NATURAL GAS	UNREPORTED	39.52725	-80.459268	1354	0	0	0	S C THORN	UNREPORTED-UNREPORTED
4704900933	47-049-00933-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.538034	-80.474063	1163	1172	0	0	ARNETT, S. R. 5450	OTHER-P & A
4704972287	47-049-72287-00	NORRIS	UNREPORTED	UNREPORTED NORRIS PETROLEUM	UNREPORTED	39.537251	-80.463389	1139	0	0	0	C D ARNETT	UNREPORTED-UNREPORTED
4704972276	47-049-72276-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.5436493	-80.4727563	1103	0	0	0	VIRGINIA DEVORE 1	UNREPORTED-UNREPORTED
4704901954	47-049-01954-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.519811	-80.469255	1375	1384	0	0	DEBERRY, EDMOND P. 5428	OTHER-P & A
4704902105	47-049-02105-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.53895	-80.465168	1085	1094	0	0	HERNDON, RUBY 5447	OTHER-P & A
4704902090	47-049-02090-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.537093	-80.472456	1135	1144	0	0	COTHERMAN, PATRICIA 5448	OTHER-P & A
4704972294	47-049-72294-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.528108	-80.457129	1154	0	0	0	FAY MORAN	UNREPORTED-UNREPORTED
4704902054	47-049-02054-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.524564	-80.462213	1132	1141	0	0	MARION COUNTY COMMISSION 5437	OTHER-P & A
4704970211	47-049-70211-00	SOUTH PENN OIL (S. PENN NAT. GAS)	UNREPORTED	UNREPORTED SOUTH PENN OIL (S. PENN NAT GAS)	UNREPORTED	39.537401	-80.47144	1208	0	0	0	RILEY ARNETT	UNREPORTED-UNREPORTED
4704972306	47-049-72306-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.549455	-80.468244	1377	0	0	0	J L TOOTHMAN	UNREPORTED-UNREPORTED
4704972299	47-049-72299-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.5166425	-80.4615164	1265	0	0	0	ARLIE G WILLIAMS 2	UNREPORTED-UNREPORTED
4704972268	47-049-72268-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.524044	-80.461891	1152	0	0	0	P H GUMP	UNREPORTED-UNREPORTED
4704901836	47-049-01836-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.5496	-80.483996	1236	0	0	0	J L TOOTHMAN	UNREPORTED-UNREPORTED
4704972298	47-049-72298-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.520628	-80.466428	1274	1283	0	0	MARION COUNTY COMMISSION 5429	OTHER-P & A
4704972298	47-049-72298-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.526214	-80.4628279	1203	0	0	0	W E GUMP 1	UNREPORTED-UNREPORTED
4704972296	47-049-72296-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.52448	-80.46264	1097	0	0	0	W E GUMP	UNREPORTED-UNREPORTED
4704972298	47-049-72298-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.523533	-80.46375	1264	1274	0	0	MARION COUNTY COMMISSION 5440	OTHER-P & A
4704902046	47-049-02046-00	CONSOLIDATION COAL COMPANY	PERMIT EXPIRED	OTHER CONSOLIDATION COAL COMPANY	PERMIT EXPIRED	39.533333	-80.476504	1400	0	0	0	S R ARNETT	UNREPORTED-UNREPORTED
4704972285	47-049-72285-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.529	-80.459555	1306	1315	0	0	JAMES, DAVID L & KARLA A 5444	OTHER-P & A
4704902078	47-049-02078-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.545827	-80.480437	1223	0	0	0	J M MCCULLOUGH	UNREPORTED-UNREPORTED
4704972275	47-049-72275-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.546117	-80.474442	1382	0	0	0	N H DEBOLT	UNREPORTED-UNREPORTED
4704972259	47-049-72259-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.519254	-80.468823	1326	1335	3342	3342	CUNNINGHAM, J. 5	OIL & GAS-P & A
4704900506	47-049-00506-00	CONSOLIDATION COAL COMPANY	P & A	OIL & GAS	CONSOLIDATION COAL COMPANY	39.550181	-80.487368	1484	0	0	0	J H SNODGRASS	UNREPORTED-UNREPORTED
4704972266	47-049-72266-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.51998	-80.465826	1342	0	0	0	ORA HUEY	UNREPORTED-UNREPORTED
4704972303	47-049-72303-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.522158	-80.463577	1075	0	0	0	ORA HUEY	UNREPORTED-UNREPORTED
4704972302	47-049-72302-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.527254	-80.459072	1318	1327	0	0	BARRON, EDWARD & VICKY 5442	OTHER-P & A
4704901986	47-049-01986-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.515485	-80.461751	1197	1206	0	0	MARION CO. COMMISSION 5411	OTHER-P & A
4704901889	47-049-01889-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.537329	-80.473004	1150	1159	0	0	COTHERMAN, PATRICIA 5449	OTHER-P & A
4704902089	47-049-02089-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.526434	-80.462837	1215	1224	0	0	MARION COUNTY COMMISSION 5441	OTHER-P & A
4704902047	47-049-02047-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.523319	-80.465263	1068	0	0	0	ORA HUEY	UNREPORTED-UNREPORTED
4704972300	47-049-72300-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.524744	-80.462708	1103	1112	0	0	MARION COUNTY COMMISSION 5439	OTHER-P & A
4704902004	47-049-02004-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.517078	-80.461516	1217	1226	0	0	MARION CO. COMMISSION 5422	OTHER-P & A
4704901959	47-049-01959-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.523533	-80.46504	1066	1075	0	0	MARION COUNTY COMMISSION 5433	OTHER-P & A
4704901928	47-049-01928-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.524888	-80.468347	1088	1097	0	0	MARION COUNTY COMMISSION 5434	OTHER-P & A
4704901941	47-049-01941-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.52607	-80.46189	1137	1146	3126	3126	GUMP, P H 2	GAS-P & A
470490107	47-049-00107-00	CONSOLIDATION COAL COMPANY	P & A	GAS	CONSOLIDATION COAL COMPANY	39.52607	-80.46189	1137	1146	3126	3126	GUMP, P H 2	GAS-P & A
4704972295	47-049-72295-00	BP	UNREPORTED	UNREPORTED BP	UNREPORTED	39.5288333	-80.4596427	1331	0	0	0	JAMES HAYS	UNREPORTED-UNREPORTED
4704900014	47-049-00014-00	CONSOLIDATION COAL COMPANY	P & A	OIL	CONSOLIDATION COAL COMPANY	39.522063	-80.466383	1314	1323	3368	3368	MARION COUNTY COMMISSION 5430	OIL-P & A
4704972273	47-049-72273-00	(N/A)	UNREPORTED	UNREPORTED (N/A)	UNREPORTED	39.546553	-80.48587	1270	0	0	0	M KENDALL	UNREPORTED-UNREPORTED

WV Department of Environmental Protection

FEB 23 2024

RECEIVED  
Office of Oil and Gas



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317

4704902538

February 1, 2024

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

Re: Class L Cement Variance Request  
Vanderbilt 10H Well  
Mannington District, Marion County

Dear Mr. Brewer,

EQT Production Company (EQT) has been notified by our cement providers that they will no longer be providing Class A cement. As a result of this, EQT is requesting the option to utilize Class L cement, if necessary, in place of Class A cement for its cement jobs.

The variance request from Legislative Rule 35CSR8, Section 9.2.h.8, related to the use of Class L Cement, was approved by the Office of Oil and Gas on September 13, 2022. A copy of the variance is included with this request.

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

Enc.

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04/12/2024



west virginia department of environmental protection

Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304  
Phone (304) 926-0450

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

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

**IN THE MATTER OF A VARIANCE FROM )  
LEGISLATIVE RULE 35CSR4 )  
SECTION 11.5 AND LEGISLATIVE RULE )  
35CSR8 SECTION 9.2.h.8., )  
RELATING TO THE CEMENTING )  
OF OIL AND GAS WELLS )**

**ORDER NO. 2022-14**

**REPORT OF THE OFFICE**

In response to industry requests, the West Virginia Department of Environmental Protection, Office of Oil and Gas has reviewed the proposed use of American Petroleum Institute (API) Class L cement to be used in place of API Class A cement for well construction.

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**FINDINGS OF FACT**

1. On July 14, 2022, Northeast Natural Energy (NNE) submitted a variance request from Legislative Rule 35CSR8 Section 9.2.h.8., for the use of API Class L cement in place of API Class A cement, relating to the construction of horizontal wells.
2. Laboratory analysis submitted by NNE on July 14, 2022, indicates API Class L cement is comparable to API Class A cement and thereby satisfies the requirements of the West Virginia Code.
3. Contemporaneously, the Chief of the Office of Oil and Gas also chose to consider a variance to Legislative Rule 35CSR4 Section 11.5., for the use of API Class L cement in place of API Class A cement, relating to the construction of vertical wells.

Promoting a healthy environment

04/12/2024

4. On August 18, 2022, the Office of Oil and Gas provided public notice of acceptance of public comments on the variance consideration. During the 20-day public comment period, no comments were received.

### CONCLUSIONS OF LAW

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

Pursuant to Legislative Rule 35CSR4, Section 18 and Legislative Rule 35CSR8, Section 14, the Chief of the Office of Oil and Gas may grant a variance from any requirement of these rules.

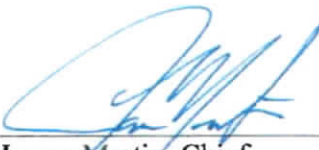
### ORDER

It is ordered that the Class L cement product approved and monogrammed by API is approved for use in place of API Class A cement for well construction subject to the provisions of Legislative Rule 35CSR4 and Legislative Rule 35CSR8.

Dated this, the 13th day of September, 2022.

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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**WEST VIRGINIA GEOLOGICAL PROGNOSIS**

VANDERBILT

API

S-001217

**Drilling Objectives:**

Marcellus

**County:**

Marion

**Quad:**

Glover Gap

**Elevation:**

1368 KB

1355 GL

**Recommended Azimuth**

153 Degrees

Recommended LP to TD: #REF!

**ESTIMATED FORMATION TOPS**

Based on GLO76 Pilot hole 4704902329

Formation	Top (TVD)	Base (TVD)	Lithology	Comments
Fresh Water Zone	1	504		FW @ 253,504, . . .
Pittsburgh Coal	1181	1188	Coal	Solid coal within an active mining boundary
Big Lime	2458	2527	Limestone	SW @
Big Injun	2527	2635	Sandstone	Gas / Oil
Int. csg pt	2685			
Gantz	3122	3210	Sandstone	Gas / Oil
50F	3210	3445	Silty Sand	Storage?
Fifth Sand	3445	3492	Silty Sand	
Bayard	3492	5937	Silty Sand	<b>Base of Offset Well Perforations at 3268' TVD</b>
Alexander	5937	6363	Silty Sand	
Elks	6363	7240	Gray Shales and Silts	
Sonyea	7240	7401	Gray shale	
Middlesex	7401	7455	Shale	
Genesee	7455	7547	Gray shale interbedded	
Geneseo	7547	7579	Black Shale	
Tully	7579	7606	Limestone	
Hamilton	7606	7707	Gray shale with some	
Marcellus	7707	7763	Black Shale	
Purcell	7726	7728	Limestone	
<b>-Lateral Zone</b>	<b>7735</b>			<b>Start Lateral at 7735'</b>
Cherry Valley	7742	7744	Limestone	
Onondaga	7763		Limestone	

Top RR Base RR  
No red rock listed in offsets

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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**

<b>Fresh Water/Coal</b>	CSG OD	13 3/8	CSG DEPTH:	1238	
<b>Intermediate I:</b>	CSG OD	9 5/8	CSG DEPTH:	2685	Beneath the Big Injun formation
<b>Production:</b>	CSG OD	5 1/2	CSG DEPTH:	@ TD	

4704902538

4704902538



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317  
P: 724-746-9073 | [www.eqt.com](http://www.eqt.com)

February 1, 2024

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 10H

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 2,685' 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 'J. Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

Enc.

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Environmental Protection

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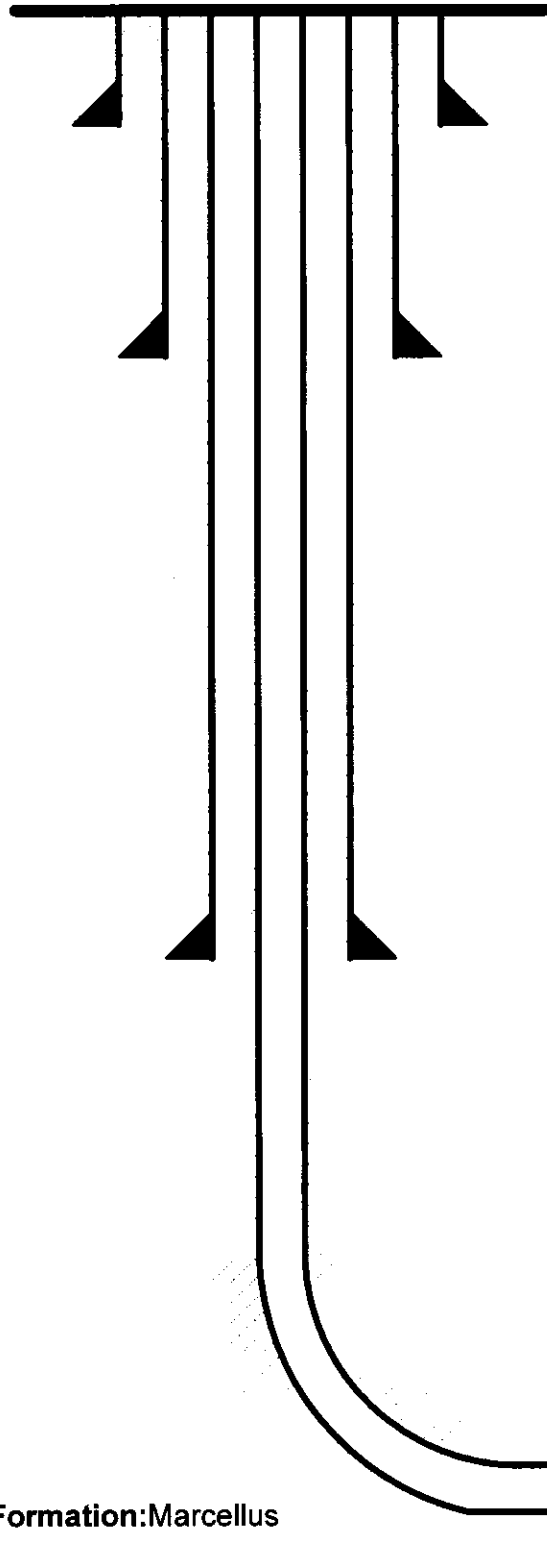
**EQT Production**

**Wellbore Diagram**

Well: Vanderbilt 10H  
Pad: Vanderbilt  
Elevation: 1355' GL 1368' KB

County: Marion  
State: West Virginia

4704902538



**Conductor @ 53'**

26", 85.6#, A252, cement to surface w/ Class A/L

**Surface @ 1,238'**

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

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**Intermediate @ 2,685'**

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

**Production @ 11,040' MD / 7,735' TVD**

6", 24#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L

Formation: Marcellus

4704902538

WW-9  
(4/16)

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Vanderbilt 10H

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

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

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

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

Company Official Signature [Signature]

Company Official (Typed Name) John Zavatchan

Company Official Title Project Specialist - Permitting

Subscribed and sworn before me this 22nd day of Feb., 20 24

[Signature] Notary Public

My commission expires Oct. 25, 2027

Commonwealth of Pennsylvania - Notary Seal  
Olivia Wilson, Notary Public  
Allegheny County  
My commission expires October 25, 2027  
Commission number 1359968  
Member, Pennsylvania Association of Notaries



WW-9 Attachment

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

- Air is used to drill the top-hole sections of the wellbore (surface, intermediate, and pilot). Water based mud or synthetic 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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**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: Ky Willett

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.

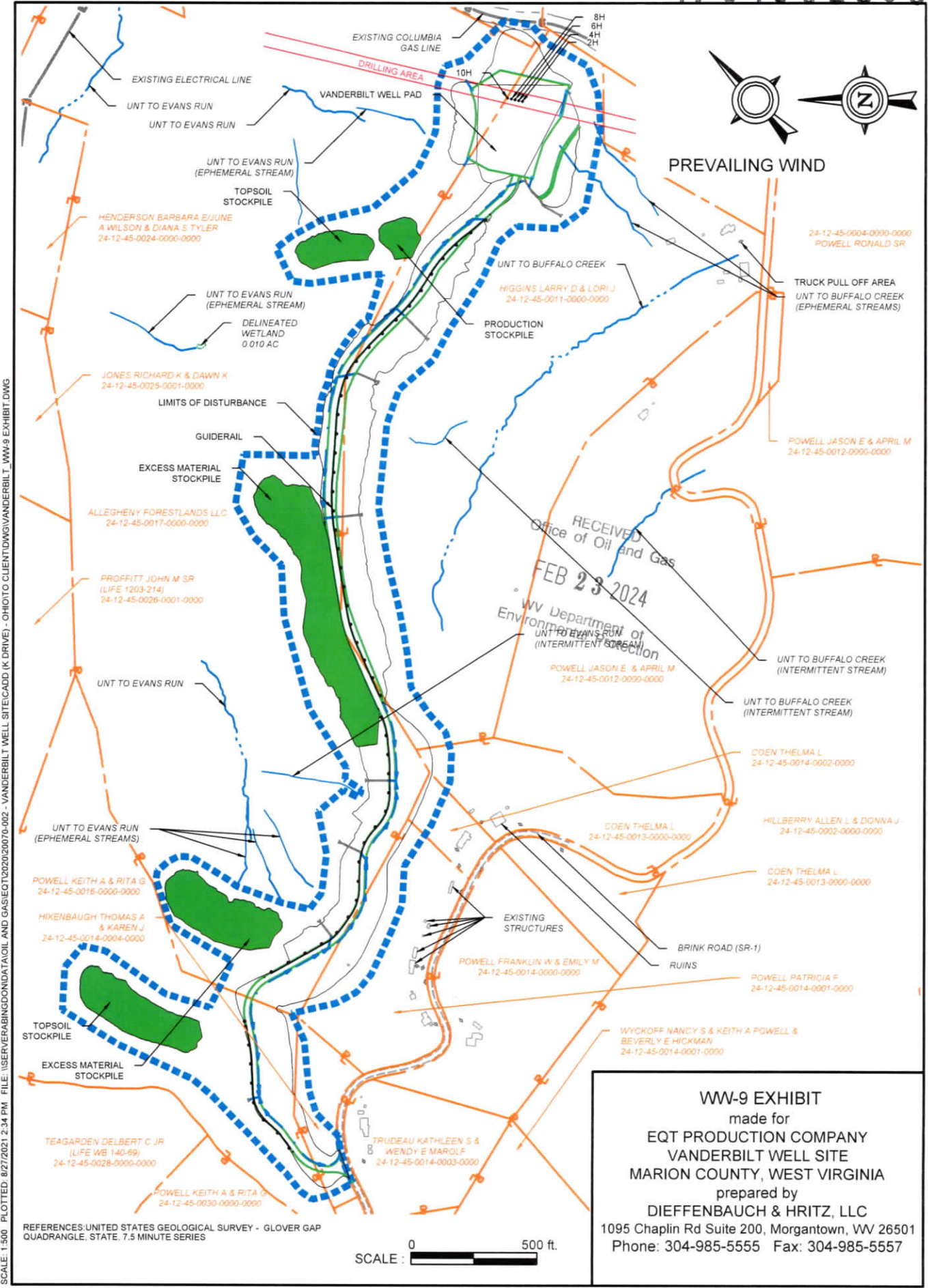
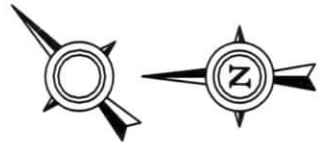
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WV Department of  
Environmental Protection

Title: Inspector Date: 2/21/24

Field Reviewed? (  ) Yes (  ) No



SCALE: 1:500 PLOTTED: 8/27/2021 2:34 PM FILE: I:\SERVER\BING\DATA\OIL AND GAS\EQT\2020\070-002 - VANDERBILT WELL SITE\CADD (K DRIVE) - OHIO TO CLIENT\DWG\VANDERBILT\_WW-9 EXHIBIT.DWG

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



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WV Department of Environmental Protection  
Office of Environmental Protection  
(INTERMITTENT STREAM)

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

04/12/2024

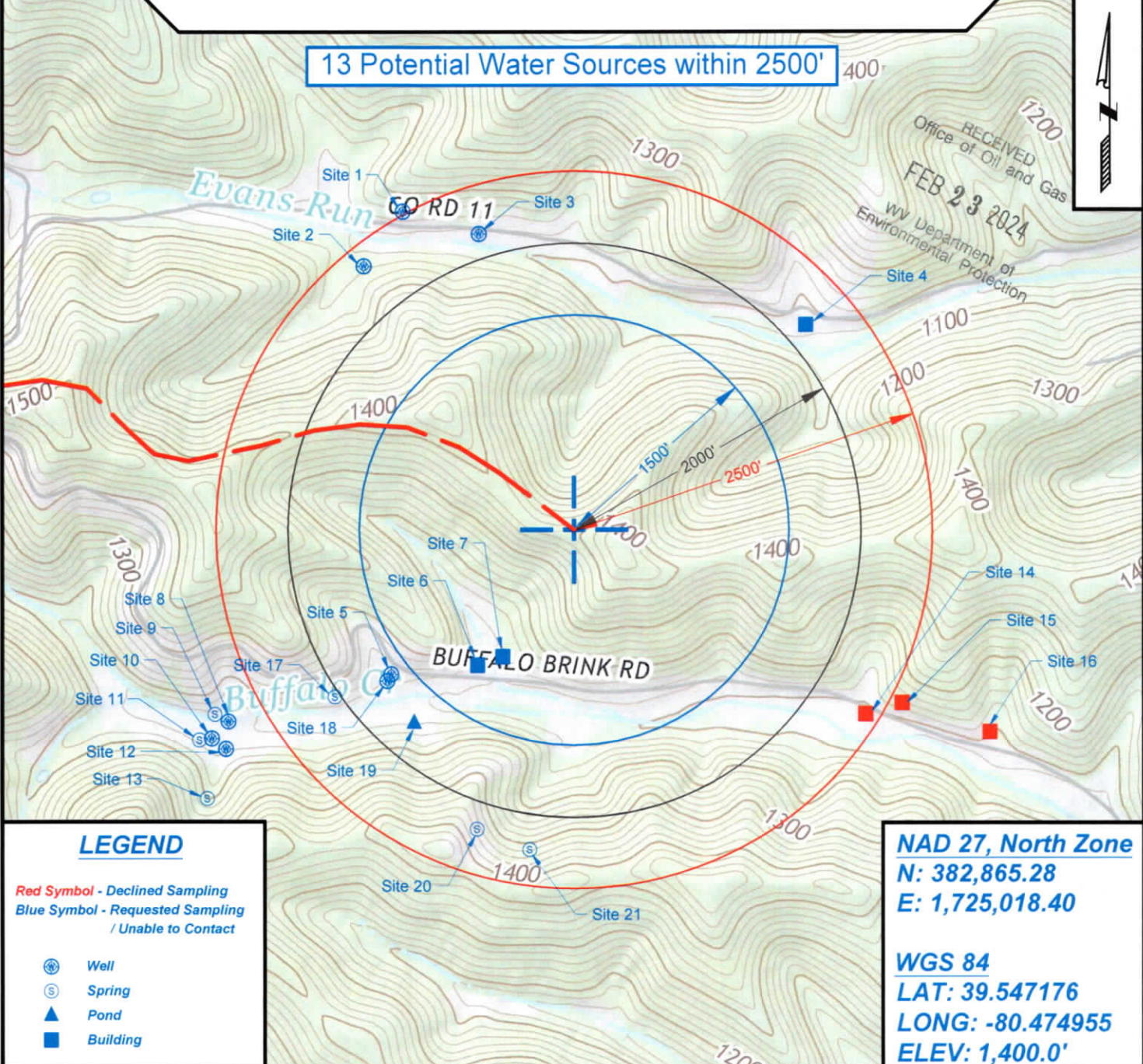


Topo Quad: Glover Gap      Scale: 1" = 1000'  
 County: Marion      Date: January 8, 2024  
 District: Mannington      Project No: 93-18-M21 **4704902538**

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**

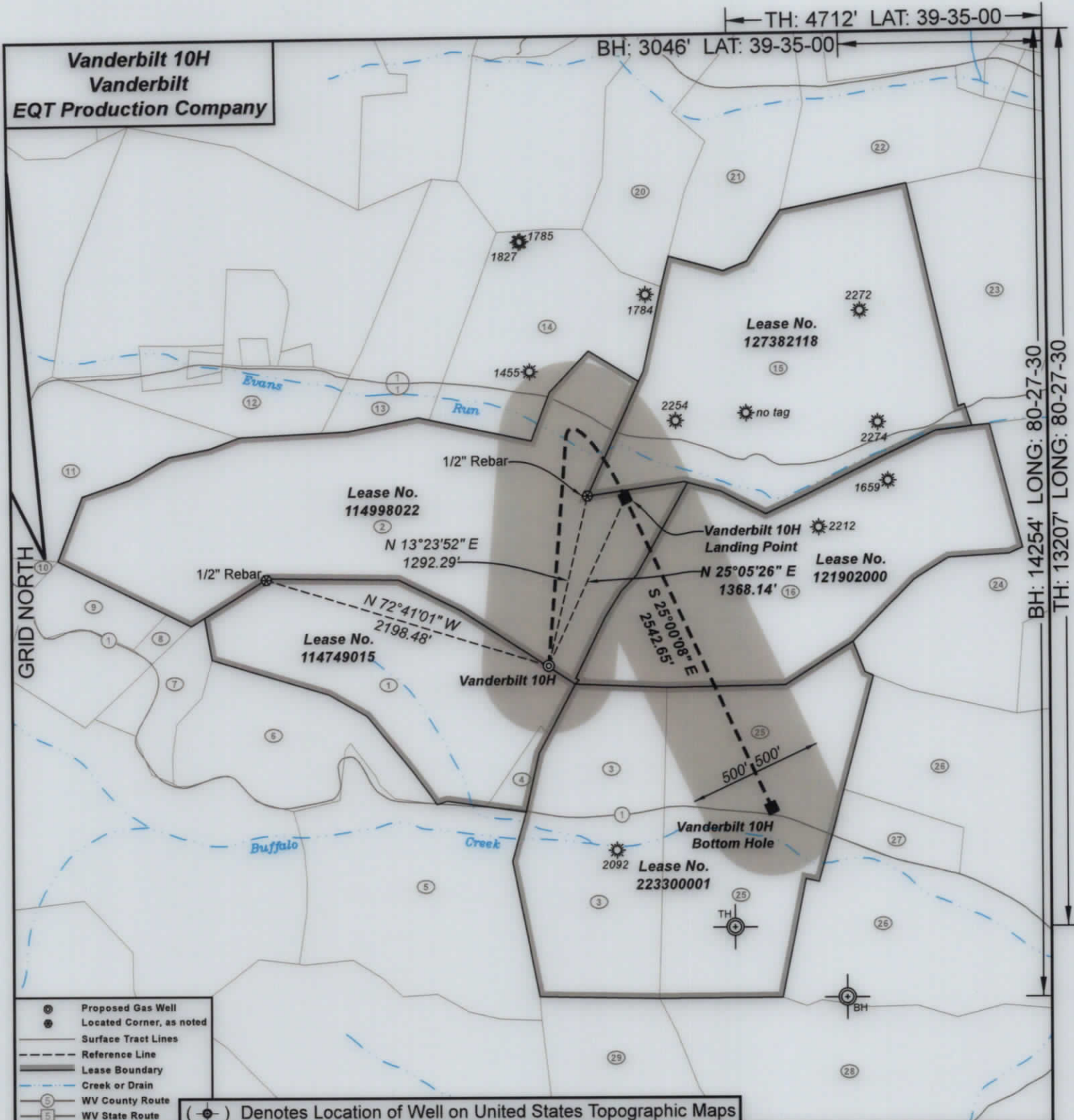
**WGS 84**  
**LAT: 39.547176**  
**LONG: -80.474955**  
**ELEV: 1,400.0'**



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

04/12/2024



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

() Denotes Location of Well on United States Topographic Maps



*I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.*

*Ben R. Singleton*  
P.S. 2092



SEAL

FILE NO: 93-21  
DRAWING NO: Vanderbilt 10H  
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: February 19 20 24  
OPERATOR'S WELL NO.: Vanderbilt 10H  
API WELL NO  
47 - 49 - 02538  
STATE COUNTY PERMIT

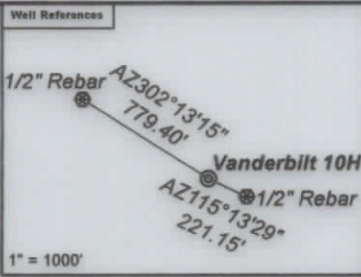
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1356.8' WATERSHED: Evans Run & Buffalo Creek QUADRANGLE: Glover Gap  
DISTRICT: Mannington COUNTY: Marion  
SURFACE OWNER: EQT Production Company ACREAGE: 125.73  
ROYALTY OWNER: Bounty Minerals, LLC, et al. LEASE NO: 114998022 ACREAGE: 125.73  
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: 7,735'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
Canonsburg, PA 15317 Clarksburg, WV 25301

04/12/2024

**Vanderbilt 10H  
Vanderbilt  
EQT Production Company**

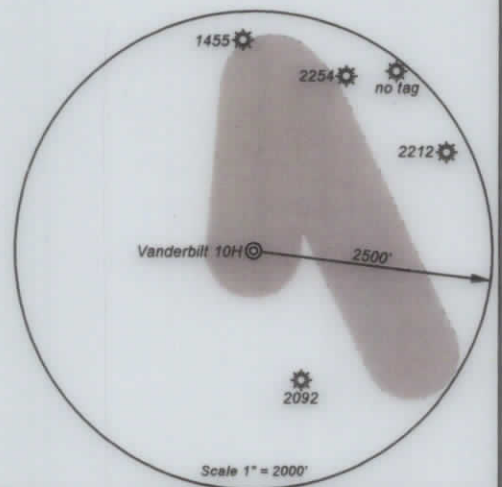
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	45	11	Marion	Mannington	Larry D. & Trisha B. Higgins	60
2	45	17	Marion	Mannington	EQT Production Company	125.73
3	45	5	Marion	Mannington	Harry R. & Susanne M. Morris	52
4	45	12.1	Marion	Mannington	April M. Powell	2.49
5	45	4	Marion	Mannington	Ronald L. Powell, Jr.	59.82
6	45	12	Marion	Mannington	April M. Powell	37.5
7	45	13	Marion	Mannington	Thelma L. Coen	11
8	45	14.2	Marion	Mannington	Thelma L. Coen	1.6
9	45	14.1	Marion	Mannington	Patricia F. Powell	8.59
10	45	14.4	Marion	Mannington	Thomas A. & Karen J. Hixenbaugh	3
11	45	16	Marion	Mannington	Keith A. Powell	27.29
12	45	26	Marion	Mannington	John M. Proffitt, Sr.	14.6
13	45	25.1	Marion	Mannington	Richard K. & Dawn K. Jones	5.71
14	45	24	Marion	Mannington	Barbara E. Henderson, et al.	38.5
15	45	23	Marion	Mannington	Thomas L. Snodgrass	105.5
16	45	20	Marion	Mannington	EQT Production Company	78.5
20	43	2	Marion	Mannington	Gary E. & Alice E. Young	37.2
21	43	1	Marion	Mannington	Wilbert & Alberta Higgins	32.5
22	42	7	Marion	Mannington	Sharon A. Grim	33
23	45	22	Marion	Mannington	Thomas L. Snodgrass	44.43
24	45	21	Marion	Mannington	Vickie E. Lucas	103.194
25	45	10	Marion	Mannington	Lisa A. & Baron R. Powell	68
26	45	9	Marion	Mannington	Jeffrey B. & Pamela J. Gray	107.277
27	45	6.1	Marion	Mannington	Barron R. & Mary A. Powell	8
28	46	5	Marion	Mannington	Ruby L. Herndon	182.04
29	46	6.1	Marion	Mannington	Patricia A. Cotherman	40



**Notes:**  
 Vanderbilt 10H coordinates are  
 NAD 27 N: 382,858.87 E: 1,725,047.22  
 NAD 27 Lat: 39.547075 Long: -80.475042  
 NAD 83 UTM N: 4,377,629.96 E: 545,121.25  
 Vanderbilt 10H Landing Point coordinates are  
 NAD 27 N: 384,097.91 E: 1,725,627.38  
 NAD 27 Lat: 39.550494 Long: -80.473033  
 NAD 83 UTM N: 4,378,010.40 E: 545,291.72  
 Vanderbilt 10H Bottom Hole coordinates are  
 NAD 27 N: 381,793.53 E: 1,726,702.03  
 NAD 27 Lat: 39.544199 Long: -80.469134  
 NAD 83 UTM N: 4,377,313.79 E: 545,630.81  
 West Virginia Coordinate system of 1927 (North Zone)  
 based upon Differential GPS Measurements.  
 Plat orientation, corner and well ties are based upon  
 the grid north meridian.  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.



Lease No.	Owner	Acres
114749015	EQT Production Company, et al.	60
114998022	Bounty Minerals, LLC, et al.	125.73
127382118	Regina C. Evans, et al.	105.5
121902000	Timothy D. Gooch	78.5
223300001	Lee and Hall Royalties, et al.	68



*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 10H  
 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: February 19 20 24  
 OPERATOR'S WELL NO.: Vanderbilt 10H  
 API WELL NO  
 47 - 49 - 02538  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: 1356.8' WATERSHED: Evans Run & Buffalo Creek QUADRANGLE: Glover Gap  
 DISTRICT: Mannington COUNTY: Marion  
 SURFACE OWNER: EQT Production Company ACREAGE: 125.73  
 ROYALTY OWNER: Bounty Minerals, LLC, et al. LEASE NO: 114998022 ACREAGE: 125.73  
 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: 7,735'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive  
 Canonsburg, PA 15317 Clarksburg, WV 25301

04/12/2024

WW-6A1  
(5/13)

Operator's Well No. Vanderbilt 10H

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

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

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

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

See Attachment

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WV Department of  
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**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



<u>Lease No.</u>	<u>Grantor, Lessor, etc.</u>	<u>Acres</u>	<u>Grantee, Lessee, etc.</u>	<u>Royalty</u>	<u>Book/Page</u>
<u>114749015</u>	<b><u>EQT Production Company, et al.</u></b> Ascent Resources Marcellus Minerals, LLC	60 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1204/61
<u>114998022</u>	<b><u>Bounty Minerals, LLC, et al.</u></b> Bounty Minerals, LLC Antero Resources Corporation	125.73 ac	Antero Resources Corporation EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1223/161 AB 56/332
<u>127382118</u>	<b><u>Regina C. Evans, et al.</u></b> Regina C. Evans	105.5 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1297/517
<u>121902000</u>	<b><u>Timothy D. Gooch</u></b> Timothy D. Gooch Antero Resources Corporation	78.5 ac	Antero Resources Corporation EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1199/256 AB 56/332
<u>223300001</u>	<b><u>Lee and Hall Royalties, et al.</u></b> Lee and Hall Royalties, a Partnership	68 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1310/1079

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4704902538



EQT PRODUCTION COMPANY  
400 Woodcliff Drive | Canonsburg, PA 15317

February 1, 2024

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

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WV Department of  
Environmental Protection

Re: Vanderbilt 10H 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 'John Zavatchan'.

John Zavatchan  
Project Specialist - Permitting

04/12/2024

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

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Environmental Protection

Date of Notice Certification: 02/22/2024

API No. 47- -  
Operator's Well No. 10H  
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:	West Virginia	UTM NAD 83	Easting:	545121.251
County:	Marion		Northing:	4377629.957
District:	Mannington	Public Road Access:		CR-1
Quadrangle:	Glover Gap	Generally used farm name:		Vanderbilt (EQT Production Company)
Watershed:	Evans Run & Buffalo Creek			

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

- 1. NOTICE OF SEISMIC ACTIVITY or  NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED
- 2. NOTICE OF ENTRY FOR PLAT SURVEY or  NO PLAT SURVEY WAS CONDUCTED
- 3. NOTICE OF INTENT TO DRILL or  NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or  WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)
- 4. NOTICE OF PLANNED OPERATION
- 5. PUBLIC NOTICE
- 6. NOTICE OF APPLICATION

OOG OFFICE USE ONLY

- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED/ NOT REQUIRED
- RECEIVED
- RECEIVED
- RECEIVED

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.

04/12/2024

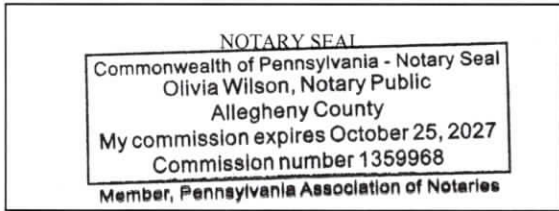
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**Certification of Notice is hereby given:**

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 22<sup>nd</sup> day of Feb. 2024  
Olivia Wilson Notary Public  
 My Commission Expires Oct. 25, 2027

**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](mailto:depprivacyofficer@wv.gov).

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: 2/21/2024 Date Permit Application Filed: 2/22/2024

Notice of:

- [X] 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 [X] 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.

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

[X] SURFACE OWNER(s)  
Name: See Attached List  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

[X] SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: See Attached List  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

[ ] SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

[X] COAL OWNER OR LESSEE  
Name: See Attached List  
Address: \_\_\_\_\_

[X] COAL OPERATOR  
Name: See Attached List  
Address: \_\_\_\_\_

[X] SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: See Attached List  
Address: \_\_\_\_\_

[ ] OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

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**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**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

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WW-6A  
(8-13)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. 10H \_\_\_\_\_  
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 and gas. 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 file written comments with 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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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

04/12/2024

**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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WV Department of Environmental Protection



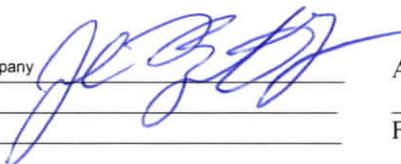
4704902538

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. <sup>10H</sup> \_\_\_\_\_  
Well Pad Name: Vanderbilt

WW-6A  
(8-13)

**Notice is hereby given by:**

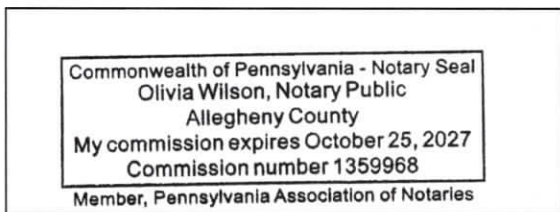
Well Operator: EQT Production Company  
Telephone: 724-746-9073  
Email: jzavatchan@eqt.com



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 [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).



Subscribed and sworn before me this 22<sup>nd</sup> day of Feb, 2024.

Olivia Wilson Notary Public

My Commission Expires Oct. 25, 2027

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**Vanderbilt****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 and Trisha Higgins ✓  
3418 Buffalo Brink Road  
Mannington, WV 26582
- EQT Production Company  
400 Woodcliff Drive  
Canonsburg, PA 15317

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**Water Supply Owners within 1,500':**

- Larry and Trisha Higgins  
3418 Buffalo Brink Road  
Mannington, WV 26582

**Coal Owners:**

- MINCO I, Inc. ✓  
c/o The Prentice-Hall Corporation System, Inc.  
251 Little Falls Drive  
Wilmington, DE 19808
- Larry and Trisha Higgins  
3418 Buffalo Brink Road  
Mannington, WV 26582
- Susan Powell Wyckoff ✓  
PO Box 751  
Granville, WV 26534

4704902538

- Jennifer Lynn Huey ✓  
1111 Ridgewood Road  
Fairmont, WV 26554
- Jefry Louis Huey ✓  
6434 Kenhowe Drive  
Bethesda, MD 20817-5446

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**Coal Lessee:**

- Consolidation Coal Company ✓  
46226 National Road West  
St. Clairsville, OH 43950

**Coal Operator:**

- Harrison County Coal Resources, Inc. ✓  
Attn: Steve Bair  
46226 National Road West  
St. Clairsville, OH 43950

04/12/2024

4704902538

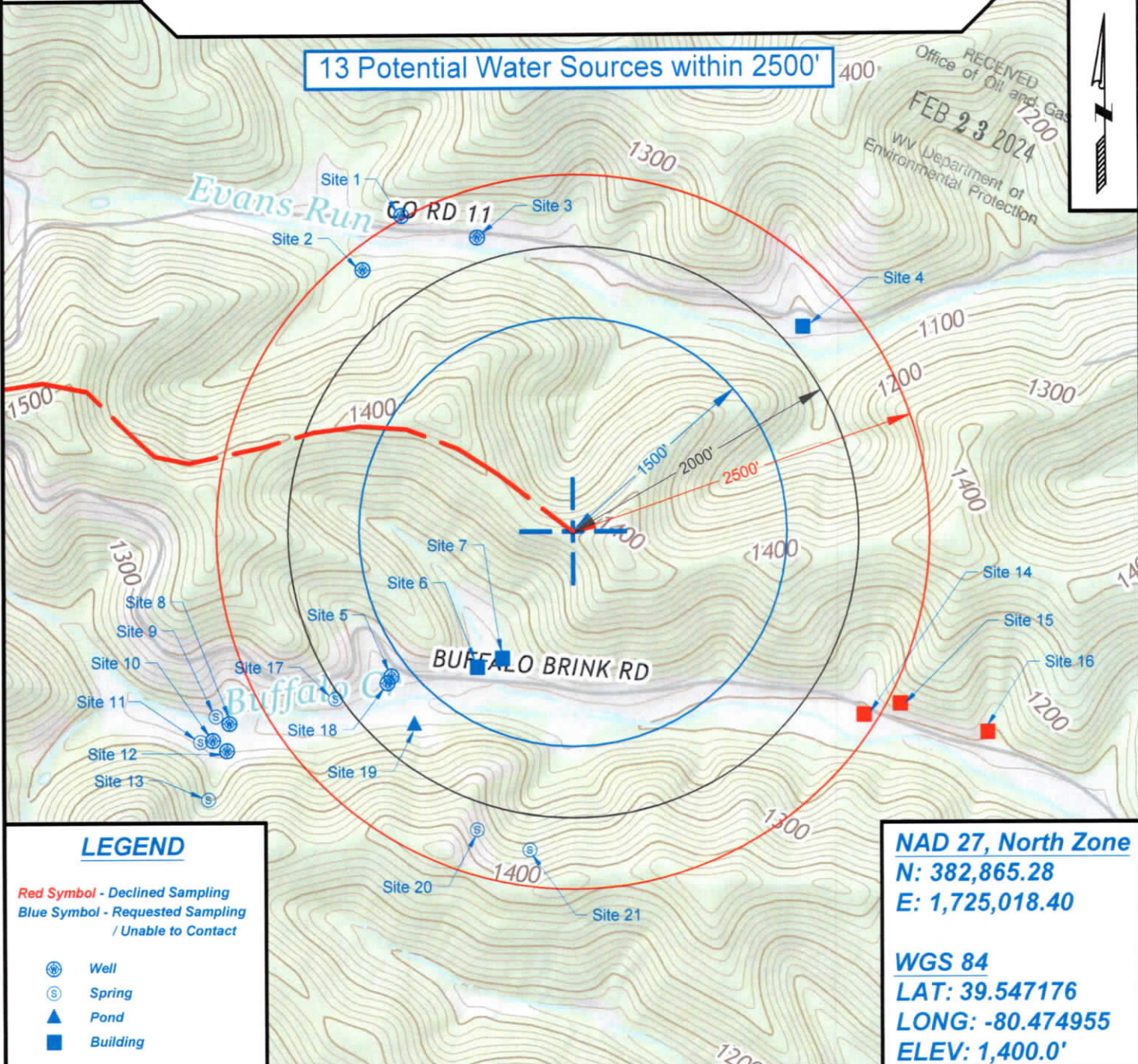
Topo Quad: Glover Gap Scale: 1" = 1000'  
 County: Marion Date: January 8, 2024  
 District: Mannington Project No: 93-18-M-21

Water

### Vanderbilt South Well Pad

13 Potential Water Sources within 2500'

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#### 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'**



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

04/12/2024

4704902538

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:** 01/09/2024 **Date Permit Application Filed:** 02/22/2024

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**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: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

**Notice is hereby given:**

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

State: West Virginia UTM NAD 83 Easting: 545121.25  
County: Marion Northing: 4377629.96  
District: Mannington Public Road Access: CR-1  
Quadrangle: Glover Gap Generally used farm name: Vanderbilt  
Watershed: Evans Run & Buffalo Creek

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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: 412-584-3132  
Email: JZavatchan@eqt.com  
Facsimile: 412-395-2974

Authorized Representative: John Zavatchan  
Address: 400 Woodcliff Drive  
Canonsburg, PA 15317  
Telephone: 412-584-3132  
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](mailto:depprivacyofficer@wv.gov).

04/12/2024

4704902538

## Vanderbilt

### 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 and Trisha Higgins - \*  
3418 Buffalo Brink Road  
Mannington, WV 26582
- EQT Production Company  
400 Woodcliff Drive  
Canonsburg, PA 15317

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WV Department of  
Environmental Protection

\*An additional 6A4 form was sent to Larry and Trisha Higgins with the 6A and 6A5 notification. The address was the same.

04/12/2024

WW-6A5  
(1/12)

Operator Well No. Vanderbilt 10H

**4704902538**

**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:** 02/21/2024      **Date Permit Application Filed:** 02/22/2024

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

- CERTIFIED MAIL                                       HAND
- RETURN RECEIPT REQUESTED                                      DELIVERY

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

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

Name: See Attached List  
Address: \_\_\_\_\_  
\_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

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**FEB 23 2024**  
WV Department of  
Environmental Protection

**Notice is hereby given:**

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

State:	<u>West Virginia</u>	UTM NAD 83	Eastings:	<u>545121.251</u>
County:	<u>Marion</u>		Northing:	<u>4377629.957</u>
District:	<u>Mannington</u>	Public Road Access:		<u>CR-1</u>
Quadrangle:	<u>Glover Gap</u>	Generally used farm name:		<u>Vanderbilt (EQT Production Company)</u>
Watershed:	<u>Evans Run &amp; Buffalo Creek</u>			

**This Notice Shall Include:**

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

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

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

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**04/12/2024**

4704902538

**Vanderbilt**

**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
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Mannington, WV 26582
- EQT Production Company  
400 Woodcliff Drive  
Canonsburg, PA 15317

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## WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**Office of the District Engineer/Manager  
District Four

Post Office Box 4220 · Clarksburg, West Virginia 26302 · (304) 842-1500

Alanna J. Keller, P.E.  
Deputy Secretary of Transportation  
Deputy Commissioner of HighwaysJimmy Wriston, P. E.  
Secretary of Transportation  
Commissioner of Highways

January 9, 2024

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

FEB 23 2024

WV Department of  
Environmental Protection**Subject: DOH Permit for the Vanderbilt Well Pad, Marion County  
Vanderbilt 10H Well Site**

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2021-0331 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 March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

Stephen G. Johnson, P.E.  
Director of OperationsCc: John Zavatchan  
EQT Production Company  
OM, D-4  
File

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

<u>Material</u>	<u>Ingredient</u>	<u>CAS Number</u>
<b>Sand (Proppant)</b>	<b>Silica Substrate</b>	<b>14808-60-7</b>
<b>Water</b>	<b>Water</b>	<b>7732-18-5</b>
<b>Hydrochloric Acid (HCl)</b>	<b>Hydrogen Chloride</b>	<b>7647-01-0</b>
<b>Friction Reducer</b>	<b>Copolymer of 2-propenamide</b>	<b>Proprietary</b>
	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
<b>Biocide</b>	<b>Glutaraldehyde</b>	<b>111-30-8</b>
	Alkyl dimethyl benzyl ammonium chloride	68391-01-5
	Didecyl dimethyl ammonium chloride	7173-51-5
	Non-hazardous substances	Proprietary
<b>Scale Control</b>	<b>Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid))(BHMT)</b>	<b>34690-00-1</b>
	Non-hazardous substances	Proprietary
<b>Acid Chelating Agent</b>	<b>Ferriplex 66</b>	
	Citric Acid	77-92-9
	Acetic Acid	64-19-7
<b>Corrosion Inhibitor</b>	<b>PLEXHIB 166</b>	
	Methanol	67-56-1
	Alcohols, C14-15, ethoxylated	68951-67-7

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OPERATOR: EQT Production Company WELL NO: 10H

PAD NAME: Vanderbilt

REVIEWED BY: John Zavatchan

SIGNATURE: 

**WELL RESTRICTIONS CHECKLIST**

**HORIZONTAL 6A WELL**

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**Well Restrictions**

At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR

DEP Waiver and Permit Conditions

At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR

DEP Waiver and Permit Conditions

At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR

DEP Waiver and Permit Conditions

At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions

At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR

Surface Owner Waiver and Recorded with County Clerk, OR

DEP Variance and Permit Conditions