

west virginia department of environmental protection

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

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

Monday, October 28, 2024 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

EQT PRODUCTION COMPANY 400 WOODCLIFF DR.

CANONSBURG, PA 15317

Re:

Permit Modification Approval for VANDERBILT 2H

47-049-02534-00-00

Lateral Extension

EQT PRODUCTION COMPANY

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926-0450.

Operator's Well Number: VANDERBILT 2H

Farm Name: LARRY AND TRISHA HIGGINS

U.S. WELL NUMBER: 47-049-02534-00-00

Horizontal 6A New Drill

Date Modification Issued: 10/28/2024

Promoting a healthy environment.

API NO. 47-049	_ 02534	
OPERATOR W	ELL NO. 2H	
Well Pad Nar	ne. Vanderbilt	-0

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

1) Well Operat	tor: EQT P	roduction Co	mpany	306686		Marion	Manningt	Glover Gap
				Operator II)	County		Quadrangle
2) Operator's V	Well Number	:: 2H		We	l Pad	Name: Var	nderbilt	
3) Farm Name	Surface Own	ner: Larry & 7	risha Hi	ggins Public	Road	d Access: Cl	R-1	
4) Elevation, co	urrent ground	d: 1,358' (b	uilt) Ele	evation, propo	sed r	ost-construc	tion: 1.358'	'built)
5) Well Type	(a) Gas	X						, o ame
	Other							
	(b)If Gas	Shallow	X	Deep				
05:			Χ					
6) Existing Pad			_					
7) Proposed Ta Marcellus, 7,	rget Formation 735', 56', 2,62	on(s), Depth(s 20 psi), Antici	pated Thickno	ess an	d Expected 1	Pressure(s):	
8) Proposed To	tal Vertical I	Depth: 7,735	ı				D=0	
9) Formation at	Total Vertic	al Depth: Ma	arcellus				Office of Oil and	d Gas
10) Proposed To	otal Measure	d Depth: 23	,286'			54(0)	OCT 23 20	
11) Proposed H	orizontal Leg	g Length: 14	,052'			1	WV Departmen Environmental Prot	t of
12) Approximat	e Fresh Wate	er Strata Deptl	ns:	253', 504'				ocaon
13) Method to I 14) Approximat			oths: O	ffset Wells -	049-()1784, 049-	30593, 049-3	0230
15) Approximat			31'-1,188	3'				
): N/	Ά		
6) Approximate Depth to Possible Void (coal mine, karst, other): N/A 7) Does Proposed well location contain coal seams lirectly overlying or adjacent to an active mine? Yes X No								
(a) If Yes, prov	vide Mine Int	fo: Name:	Harriso	on County Mi				
		D. 41	1,181'-					
CK#	606098 7500°	Seam:	Pittsbu	rgh				
#	7500 °	Owner:	Harriso	n County Co	al Re	esources, In	C.	
				ny Wille				

WW-6B
(04/15)

API NO. 47- 049 - 02534

OPERATOR WELL NO. 2H
Well Pad Name: Vanderbilt

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A252	85.6	53	53	45 ft^3 / CTS
Fresh Water	13 3/8	New	J-55	54.5	1238	1238 /	1135 ft^3 / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2685	2685	1035 ft^3 / CTS
Production	6	New	P-110	24	23286	23286	500' above intermediate casing
Tubing						54- 4340 A-600-400-40	
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	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						RECEIVED	

Office of Oil and Gas

OCT 1 7 2024

PACKERS

WV Department of Environmental Protection

Kind:			
Sizes:			
Depths Set:	8		

Kenny Willett

API NO. 47- 049 - 02534

OPERATOR WELL NO. 2H

Well Pad Name: Vanderbilt

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

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

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WV Department of Environmental Protection

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

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10,000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 200,000-600,000 pounds of proppant per stage.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 56.80 acres (built)
- 22) Area to be disturbed for well pad only, less access road (acres): 8.44 acres (built)
- 23) Describe centralizer placement for each casing string:
- Surface: Bow spring centralizers One centralizer at the shoe and one spaced every 500'.
- Intermediate: Bow spring centralizers- One centralizer at the shoe and one spaced every 500'.
- Production: One solid body centralizer spaced every other joint from production casing shoe to landing point. One solid body centralizer spaced every joint from landing point to planned top of cement.

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

Conductor: Class A no additives

Surface: Calcium Chloride. Used to speed the setting of cement slurries

Intermediate: Calcium Chloride. Used to speed the setting of cement slurries. If applicable: Gas Migration Control Additive, Cement Retarder Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder,

Anti-Settling/Suspension Agent

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.

Production: Perform a cleanup cycle by pumping 3-8 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

Kenny Willett

EQT Production Wellbore Diagram Vanderbilt 2H Well: County: Marion Pad: Vanderbilt State: West Virginia Elevation: 1358' GL 1371' KB 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 OCT 1 7 2024 Intermediate 2,685' (a) 9-5/8", 36#, J-55, cement to surface w/ Class A/H/L Production 23,286' MD / 7,735' TVD @ 6", 24#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L Formation: Marcellus

EQT Production

Hydraulic Fracturing Monitoring Plan

Pad ID: Vanderbilt

County: Marion



October 4, 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.

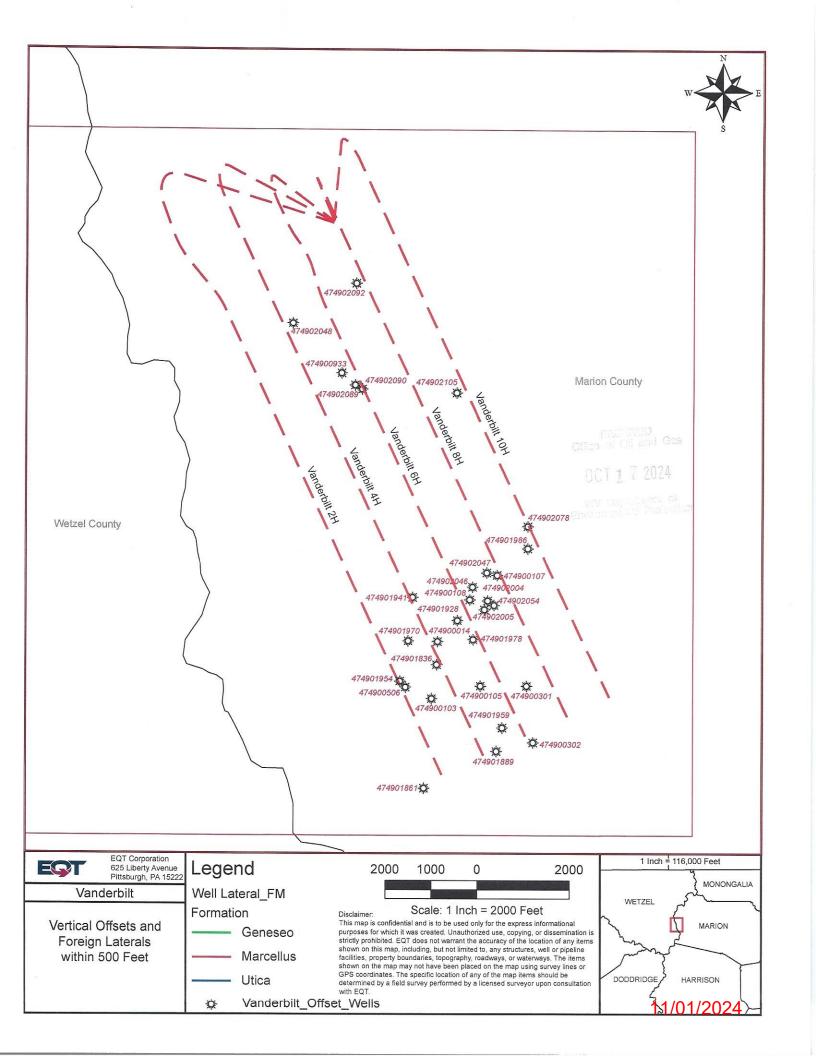
EQT will recommend to these operators at a minimum to:

- 1. Inspect their surface equipment prior to fracturing to establish integrity and establish prefrac 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
- Notify the OOG and EQT if any changes in water, gas production, pressure, or other anomalies are identified

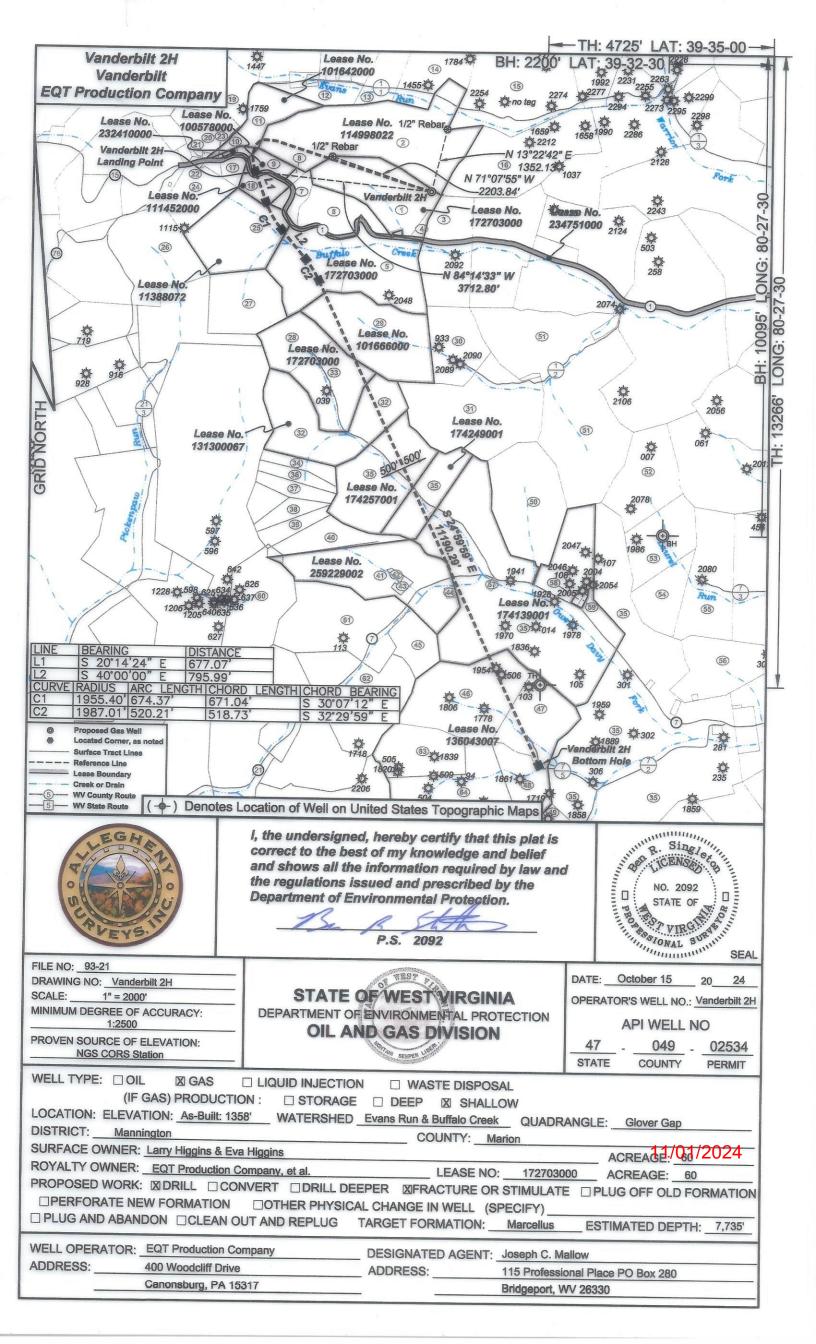
2. Reporting

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.

OCT 1 7 2024



UWI 017850000	ABAND_DATE CURR_OPER		FIELD_NAME	FNL_CLASS	LATITUDE LONGITUDE OPER_NAME	PROJ_TD SPUD_DATE ELI		
	GALLATIN FUELS INC	GR	COBURN-EARNSHAW	DEVELOPMENT WELL-GAS	39.55569440 -80.47583330 GALLATIN FUELS INC	200 (1986) 100 (1986) 100 (1986) 100 (1986) 100 (1986) 100 (1986) 100 (1986) 100 (1986) 100 (1986) 100 (1986)		OT_DEPTH
018270000	GALLATIN FUELS INC	GR	COBURN-EARNSHAW	DEVELOPMENT WELL-GAS	39.55583480 -80.47603930 GALLATIN FUELS INC		1421.00	3700.00
2 001030000	7/22/2008 SOUTH PENN OIL	GR	UNNAMED	DEVELOPMENT WELL-GAS	39.51850500 -80.46698200 SOUTH PENN OIL	3700.00000000 1/23/2007 0.00000000 7/2/1942	1413.00 1348.00	3686.00 3369.00
303600000	7/23/1942 PITTSBURGH OIL & GAS	GR	SMITHFIELD	DEVELOPMENT WELL-OIL	39.55140300 -80.48129800 PITTSBURGH OIL & GAS	0.00000000 7/2/1942	1348.00	2489.00
000140000	10/22/2008 SOUTH PENN OIL	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.52163700 -80.46732600 SOUTH PENN OIL	0.00000000 1/17/1930	1320.00	3368.00
2 005060000	CONSOLIDATION COAL CO	TS	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.51917000 -80.46901210 PENNZOIL CO INC	0.00000000 11/3/1928	1300.00	3342.00
018360000	10/29/2007 CONSOLIDATION COAL CO	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.52044440 -80.46641670 CONSOLIDATION COAL CO	0.00000000 18010101	1274.00	1600.00
001050000	8/27/2007 EAST RESOURCES	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.51990800 -80.46481200 SOUTH PENN OIL	0.00000000 10/2/1942	1252.00	3261.00
001080000	4/26/1974 SOUTH PENN OIL	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.52428500 -80.46350900 SOUTH PENN OIL	0.00000000 10/2/1942	1208.00	3130.00
020470000	10/20/2009 CONSOLIDATION COAL CO	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.52619440 -80.46288890 CONSOLIDATION COAL CO	0.00000000 18010101	1200.00	1565.00
017770000	11/7/2006 CONSOLIDATION COAL CO	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.51522210 -80.46177780 CONSOLIDATION COAL CO	0.00000000 18010101	1195.00	1368.00
003020000	9/2/2008 EQUITABLE GAS CO	GR	LOGANSPORT	GAS STORAGE WELL	39.51594700 -80.45913400 EQUITABLE GAS CO	0.00000000 9/1/1970	1191.00	1535.00
001070000	5/4/1974 SOUTH PENN OIL	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-GAS	39.52601200 -80.46182000 SOUTH PENN OIL	0.00000000 7/2/1942	1178.00	3126.00
020890000	3/18/2010 CONSOLIDATION COAL CO	GR	UNNAMED	DEVELOPMENT WELL-GAS	39.53716670 -80.47277780 CONSOLIDATION COAL CO	0.00000000 18010101	1150.00	1500.00
020540000	11/5/2009 CONSOLIDATION COAL CO	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.52425000 -80.46230560 CONSOLIDATION COAL CO	0.00000000 18010101	1149.00	1300.00
014550000 014550001	GALLATIN FUELS INC GALLATIN FUELS INC	KB KB	SEVEN PINES SEVEN PINES	DEVELOPMENT WELL-GAS	39.55315280 -80.47557220 FALCON HOLDINGS LLC	3350.00000000 12/22/2003	1109.00	2300.00
021050000	6/1/2010 CONSOLIDATION COAL CO	GR	UNNAMED	DEVELOPMENT WELL-GAS DEVELOPMENT WELL-GAS	39.55315280 -80.47557220 FALCON HOLDINGS LLC	3400.00000000 9/5/2004	1109.00	3426.00
700520000	SOUTH PENN OIL	GR	WALLACE-FOLSOM	DEVELOPMENT WELL-OIL	39.53672220 -80.46536110 CONSOLIDATION COAL CO 39.52425000 -80.46376610 SOUTH PENN OIL	0.00000000 18010101	1077.00	1251.00
003010000	11/24/2006 EQUITABLE GAS CO	GR	LOGANSPORT	GAS STORAGE WELL	39.51931700 -80.45376610 SOOTH PENN OIL	0.00000000 6/8/1902	1075.00	3013.00
009330000	4/6/2010 LEATHERWOOD INC	GR	UNNAMED	DEVELOPMENT WELL-OIL	39.53787700 -80.473988200 EQUITABLE GAS CO	0.00000000 6/1/1970	1046.00	2341.00
700510000	SOUTH PENN OIL		UNKNOWN	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.52439500 -80.46826200 SOUTH PENN OIL	0.00000000 18010101 0.00000000 18010101	1046.00 0.00	0.00
300210000	9/27/1930 SOUTHERN OIL INC		UNKNOWN	UNCLASSIFIED	39.55009700 -80.48268700 SOUTHERN OIL INC	0.00000000 2/12/1917	0.00	0.00
702110000	SOUTH PENN OIL		UNKNOWN	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.53731300 -80.47163400 SOUTH PENN OIL	0.00000000 18010101	0.00	0.00
722760000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54356500 -80.47294600 UNKNOWN	0.00000000 18010101	0.00	0.00
722770000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54298500 -80.48231300 UNKNOWN	0.00000000 18010101	0.00	0.00
722590000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54603300 -80.47463200 UNKNOWN	0.00000000 18010101	0.00	0.00
722600000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.55096700 -80.47837810 UNKNOWN	0.00000000 18010101	0.00	0.00
722610000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.55096700 -80.48062700 UNKNOWN	0.00000000 18010101	0.00	0.00
722680000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54951590 -80.48418600 UNKNOWN	0.00000000 18010101	0.00	0.00
722690000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54864500 -80.48456100 UNKNOWN	0.00000000 18010101	0.00	0.00
722830000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.53847400 -80.47538100 UNKNOWN	0.00000000 18010101	0.00	0.00
722850000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.53324900 -80.47669200 UNKNOWN	0.00000000 18010101	0.00	0.00
722970000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.52454000 -80.46395300 UNKNOWN	0.00000000 18010101	0.00	0.00
722730000 722750000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54646800 -80.48605900 UNKNOWN	0.00000000 18010101	0.00	0.00
722860000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54574200 -80.48062700 UNKNOWN	0.00000000 18010101	0.00	0.00
72300000	UNKNOWN		UNKNOWN	UNCLASSIFIED UNCLASSIFIED	39.53194200 -80.47688000 UNKNOWN	0.00000000 18010101	0.00	0.00
723020000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.52323400 -80.46545200 UNKNOWN 39.52207300 -80.46376610 UNKNOWN	0.00000000 18010101	0.00	0.00
723010000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.52163700 -80.46788800 UNKNOWN	0.00000000 18010101 0.00000000 18010101	0.00	0.00
723030000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.51989600 -80.46601400 UNKNOWN	0.00000000 18010101	0.00	0.00
722740000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54617800 -80.48250000 UNKNOWN	0.00000000 18010101	0.00	0.00
722780000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.54356500 -80.48512300 UNKNOWN	0.00000000 18010101	0.00	0.00
722870000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.53716690 -80.46357900 UNKNOWN	0.00000000 18010101	0.00	0.00
302110000	7/21/1939 CARNEGIE NATURAL GAS CORP		UNKNOWN	PSEUDO-ORIGINAL WELL - UNKNOWN CLASS	39.52715300 -80.45945700 CARNEGIE NATURAL GAS CORP	0.00000000 18010101	0.00	0.00
722940000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.52802400 -80.45731900 UNKNOWN	0.00000000 18010101	0.00	0.00
722950000	HOPE NATURAL GAS		UNKNOWN	UNCLASSIFIED	39.52874900 -80.45983200 HOPE NATURAL GAS	0.00000000 18010101	0.00	0.00
722980000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.52439500 -80.46282900 UNKNOWN	0.00000000 18010101	0.00	0.00
722990000	UNKNOWN		UNKNOWN	UNCLASSIFIED	39.52396000 -80.46208000 UNKNOWN	0.00000000 18010101	0.00	0.00
723060000	UNKNOWN			UNCLASSIFIED	39.51655800 -80.46170500 UNKNOWN	0.00000000 18010101	0.00	0.00
723070000	UNKNOWN			UNCLASSIFIED	39.51510600 -80.46189300 UNKNOWN	0.00000000 18010101	0.00	0.00
019780000	3/10/2008 CONSOLIDATION COAL			UNCLASSIFIED	39.52188000 -80.46370000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
020050000	12/1/2009 CONSOLIDATION COAL			UNCLASSIFIED	39.52389000 -80.46322010 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
020900000	2/26/2010 CONSOLIDATION COAL			UNCLASSIFIED	39.53686000 -80.47255000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
020920000	4/26/2010 CONSOLIDATION COAL			UNCLASSIFIED	39.54334000 -80.47321000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
019280000	11/4/2008 CONSOLIDATION COAL 2/5/2008 CONSOLIDATION COAL			UNCLASSIFIED	39.52340000 -80.46507000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
019410000	3/7/2008 CONSOLIDATION COAL			UNCLASSIFIED	39.52441000 -80.46769000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
019340000	9/16/2008 CONSOLIDATION COAL			UNCLASSIFIED UNCLASSIFIED	39.51948000 -80.46919000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
019860000	12/19/2008 CONSOLIDATION COAL			LINCLASCIFIED	39.52183000 -80.46867000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
020040000	3/2/2009 CONSOLIDATION COAL			UNCLASSIFIED	39.52706000 -80.45919010 CONSOLIDATION COAL 39.52947000 -80.46281000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
020780000	7/23/2010 CONSOLIDATION COAL			UNCLASSIFIED	39.52875000 -80.45281000 CONSOLIDATION COAL	0.00000000 18010101	0.00	0.00
019590000	5/8/2008 CONSOLIDATION COAL			UNCLASSIFIED	39.51701000 -80.46170000 CONSOLIDATION COAL	0.00000000 18010101 0.00000000 18010101	0.00	0.00
019290000								0.00



Vanderbilt 2H Vanderbilt EQT Production Company

Irack I.D. Lax/Map No. Parcel No. County District Af5 11 Marion Mannington M	Acres 60 125.73 52 2.49 59.82 37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5 11 1.58 40.8
1 45 11 Marion Mannington Manning	60 125.73 52 2.49 59.82 37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5
4 45 12.1 Marion Mannington Manni	125.73 52 2.49 59.82 37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5 607 6.07
4 45 5 Marion Mannington Manningt	52 2.49 59.82 37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 76.07 6.07
4 45 12.1 Merion Mannington Manni	2.49 59.82 37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5
45 4 Marion Mannington	59,82 37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5 6.07 11.58
45 12 Marion Mannington 45 14.2 Marion Mannington 45 14.2 Marion Mannington 45 14.1 Marion Mannington 45 14.4 Marion Mannington 45 14.4 Marion Mannington 46 16 Marion Mannington 47 45 26 Marion Mannington 48 45 26.1 Marion Mannington 48 45 26.1 Marion Mannington 49 45 26.1 Marion Mannington 40 45 26.1 Marion Mannington 40 45 26 Marion Mannington 41 45 26 Marion Mannington 42 45 23 Marion Mannington 43 45 20 Marion Mannington 45 14.3 Marion Mannington 46 45 20 Marion Mannington 47 45 14.3 Marion Mannington 48 45 14 Marion Mannington 48 45 14 Marion Mannington 49 45 28 Marion Mannington 40 46 Marion Mannington 41 45 26 Marion Mannington 42 45 14 Marion Mannington 43 45 14.6 Marion Mannington 45 28 Marion Mannington 46 6.1 Marion Mannington 47 45 14.3 Marion Mannington 48 46 10.1 Marion Mannington 49 46 10 Marion Mannington 40 46 9 Marion Mannington 40 46 9 Marion Mannington 40 46 9 Marion Mannington 41 46 1 Marion Mannington 42 46 1.1 Marion Mannington 43 46 16 Marion Mannington 44 46 12 Marion Mannington 45 46 10 Marion Mannington 46 6 Marion Mannington 47 48 10 Marion Mannington 48 49 Marion Mannington 49 49 Marion 49 49 Marion 40 40 9 Marion Mannington 40 41 46 1 Marion Mannington 40 46 9 Marion Mannington 40 46 9 Marion Mannington 40 Marion Mannington 41 42 46 1.1 Marion Mannington 42 46 1.1 Marion Mannington 43 46 10 Marion Mannington 44 46 12 Marion Mannington 45 46 17 Marion Mannington 46 18 Marion Mannington 47 48 18 18 Marion Mannington 48 19 Marion Mannington 48 19 Marion Mannington 48 19 Marion Mannington 49 40 Marion Mannington 49 40 Marion Mannington 40 41 42 42 Marion Mannington 40 42 43 11 Marion Mannington 40 44 45 12 Marion Mannington 40 Marion Mannington 41 44 45 12 Marion Mannington 42 44 45 11 Marion Mannington 43 45 14 Marion Mannington 44 46 12 Marion Mannington 45 14 Marion Mannington 46 17 Marion Mannington 47 48 18 18 Marion Mannington 48 19 Marion Mannington 49 40 Marion Mannington 40 40 Mario	37.5 11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5 10.5 10.5 10.5 10.5
7 45 13 Marion Mannington Manning	11 1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5 01f 6.07 11.58
45 14.1 Marion Mannington Manning	1.6 8.59 3 27.29 14.6 5.71 38.5 105.5 78.5
9 45 14.1 Marion Mannington Mannington Horicia F. Powell 10 45 14.4 Marion Mannington Ma	8.59 3 27.29 14.6 5.71 38.5 105.5 78.5 6.07 11.58
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32 46 11 Marion Mannington Brett Martin John Myers	40
33 46 10 Marion Mannington John Myers	100
34 46 12 Marion Mannington Spett Martin	59.55
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39 46 17 Marion Mannington Brett Martin	8.5
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48 47 Mailtington The West Virginia Land Trust Inc.	48
17 Iviel IVI I IVIEL IVII IVII	30
80 46 Marion Warron County Coal Resources Inc.	98
51 16 William Wallington Wike Hoss Inc	67.47
52 49 Herndon	182.04
53 10 Invariant Warrangton Dawid & Karla A James	56.5
54 49 EQI Production Company	40
55 49 Wark A Berron	27.5
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F7 100 Ivial in linguori Iviarion County Coal Resources Inc.	46.83
46 2.3 Marion Mannington Megan M. Peek	0.75
58 48 2.2 Marion Mannington Marion County Commission	
59 46 2.4 Marion Mannington Marion County Commission	1.19
60 25 40 Wetzel Grant Walter B. & Rosia Lee Smith	
61 47 12 Marion Mannington George B. & Cynthia L. Koyach	1.19 0.81 57.5
62 47 5 Marion Mannington Amber M. Nichols	0.81 57.5
63 47 4 Marion Mannington Debra A. Marcozzi	0.81 57.5 75.56
64 47 3 Marion Mannington Debra A. Marcozzi	0.81 57.5

Notes:

Vanderbilt 2H coordinates are

NAD 27 N: 382,800.56 E: 1,725,033.80

NAD 27 Lat: 39.546915 Long: -80.475088

NAD 83 UTM N: 4,377,612.12 E: 545,117.46

Vanderbilt 2H Landing Point coordinates are

NAD 27 N: 383,173.02 E: 1,721,339.73

NAD 27 N: 383,173.02 E: 1,721,339.73

NAD 27 Lat: 39.547826 Long: -80.488201

NAD 83 UTM N: 4,377,706.82 E: 543,990.13

Vanderbilt 2H Bottom Hole coordinates are

NAD 27 N: 370,768.20 E: 1,727,430.22

NAD 27 Lat: 39.513952 Long: -80.466131

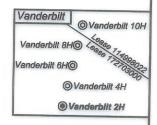
NAD 83 UTM N: 4,373,958.47 E: 545,908.58

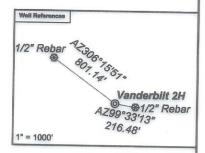
West Virginia Coordinate system of 1927 (North Zone) based upon Differential GPS Measurements.

Plat orientation, comer and well ties are based upon the grid north meridian.

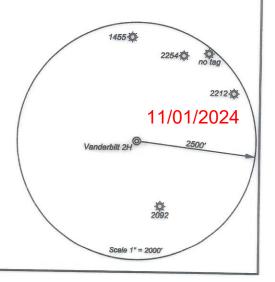
Well location references are based upon the grid north meridian.

UTM coordinates are NAD83, Zone 17, Meters.





Lease No.	Owner	Acres
172703000	EQT Production Company, et al.	60
114998022	Bounty Minerals, LLC, et al.	125.73
101642000	Waco Oil & Gas Company, Inc., et al.	94
232410000	EQT Production Company	3
100578000	Patricia F. Powell	8.59
234751000	West Virginia Department of Transportation, Division of Highways	
111452000	EQT Production Company	46.86
113880072	Bounty Minerals, LLC, et al.	11.58
172703000	EQT Production Company, et al.	161
101666000	XTO Energy Inc.	126
172703000	EQT Production Company, et al.	74
131300067	Country Roads Minerals, LLC, et al.	75
174257001	Country Roads Minerals, LLC, et al.	63.5
174249001	Country Roads Minerals, LLC, et al.	77
174139001	Country Roads Minerals, LLC, et al.	34
	Country Roads Minerals, LLC, et al.	203
136043007	Lee and Hall Royalties, et al.	85.25
1000+0007	Lee and rian Royaldes, et al.	274



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

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

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

Lease Name or

Number

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

See Attached

OCT 1 7 2024

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:

Branden Weimer

Its:

Regional Manager - Subsurface Permitting

Page 1 of 4

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
<u>/172703000</u>	EQT Production Company, et al. 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>	Bounty Minerals, LLC, et al. 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
101642000	Waco Oil & Gas Company, Inc., et al. Waco Oil & Gas Company, Inc.	94 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1177/435
<u> 232410000</u>	EQT Production Company Thomas A. Hixenbaugh and Karen J. Hixenbaugh	3 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1336/718
<u>/100578000</u>	Patricia F. Powell Patricia Ellen Powell, a/k/a Patricia F. Powell, widow	8.59 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1168/146
234751000	West Virginia Department of Transportation, Division of Highways West Virginia Department of Transportation, Division of Highways	46.86 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1336/524
	EQT Production Company		OCT 1	"at least 1/8th per WV Code 22-6-8"	
111452000	Legacy Minerals, LLC	11.58 ac	EQT Production Company	and Ga	Statement of Merger dated December 27, 2017

/	<u> 113880072</u>	Bounty Minerals, LLC, et al. Bounty Minerals, LLC		161 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1355/529
/	<u>172703000</u>	EQT Production Company, et al. Ascent Resources Marcellus Minerals, L	LC	126 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1204/61
, /	101666000	XTO Energy Inc. XTO Energy Inc.		74 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1172/179
/	172703000	EQT Production Company, et al. Ascent Resources Marcellus Minerals, L	LC	75 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1204/61
/	131300067	Country Roads Minerals, LLC, et al. Country Roads Minerals, LLC		63.5 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1348/233
1	<u>174257001</u>	Country Roads Minerals, LLC, et al. Country Roads Minerals, LLC		77 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1290/485
1	<u>174249001</u>	Country Roads Minerals, LLC, et al. Country Roads Minerals, LLC	OCT 7	34 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1291/667
/	174139001	Country Roads Minerals, LLC, et al. Country Roads Minerals, LLC	7 2024 Withent of all Protection	203 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1291/676
J	259229002	Country Roads Minerals, LLC, et al. Country Roads Minerals, LLC Antero Resources Corporation		85.25 ac	Antero Resources Corporation EQT Production Copany	"at least 1/8th per WV Code 22-6-8"	DB 1320/9 AB 65/756

Lee and Hall Royalties, et al.

Lee and Hall Royalties

136043007

274 ac EQT Production Company

"at least 1/8th per WV Code 22-6-8"

DB 1310/1083

Office of Oil and Gas

OCT 1 7 2024

Environment of Colon



October 16, 2024

Via FedEx Overnight Delivery

West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 OCT 1 7 2024

RF-

Well Work Permit Application Modification – EXPEDITED REVIEW REQUESTED

Vanderbilt 2H

Permit Number 47-049-02534

Mannington District, Marion County, WV

WVDEP Recipient,

Attached please find the Well Work Permit Application for the well referenced above. You will find the following included with this submittal:

- Check in the amount \$7,500.00 for the expedited permit modification fee
- Completed WW-6B and supporting documents, approved by the O&G Inspector
- Well Location Plat
- Completed Form WW-6A1 and supporting documentation
- Hydraulic Fracturing Monitoring Plan
- Offset Well Map and Table
- CD including the Water Management Plan Modification Application

EQT is proposing to extend the lateral from the previously permitted length.

EQT Production trusts that if any portion of the submitted documentation is found to be inadequate for processing the permit, notification will be made to our Permitting department at your earliest convenience. It is EQT Production's intent to cooperate fully to provide any additional requested documentation and clarification in a timely manner such that permitting proceeds in a predictable and logical manner.

Best Regards,

Branden Weimer

Regional Manager – Permitting

Branden.Weimer@eqt.com

412-997-7940