



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, September 11, 2023
WELL WORK PERMIT
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700

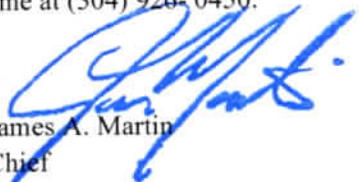
PITTSBURGH, PA 15222

Re: Permit approval for RADCLIFF 14H
47-049-02513-00-00

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: RADCLIFF 14H
Farm Name: Jackie D & Sheila L Radcliff
U.S. WELL NUMBER: 47-049-02513-00-00
Horizontal 6A New Drill
Date Issued: 9/11/2023

Promoting a healthy environment.

09/15/2023

PERMIT CONDITIONS 4704902513

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

CONDITIONS

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

09/15/2023

WW-6B
(04/15)

API NO. 47- _____ - _____

OPERATOR WELL NO. 14H

Well Pad Name: Radcliff

4704902513

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: 14H Well Pad Name: Radcliff

3) Farm Name/Surface Owner: Jackie D. & Sheila L. Radcliff Public Road Access: CR 4/4

4) Elevation, current ground: 1,493' (built) Elevation, proposed post-construction: 1,493'

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, 7,916', 78', 2,593 psi

8) Proposed Total Vertical Depth: 7,916'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 11,455'

11) Proposed Horizontal Leg Length: 2,967'

12) Approximate Fresh Water Strata Depths: 460', 490', 621', 751'

13) Method to Determine Fresh Water Depths: Offset Wells - 049-02184, 049-00699, 049-00168, 049-30339, 049-30238

14) Approximate Saltwater Depths: 1,856', 2,127', 2,247'

15) Approximate Coal Seam Depths: 1,200'-1,206', 1,297'-1,304'

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

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

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

Depth: _____

Seam: _____

Owner: _____

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47- _____
 OPERATOR WELL NO. 14H
 Well Pad Name: Raddell

4704902513

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 GR 3 Base	85.6	40	40	50 ft ³ / CTS
Fresh Water	13 3/8	New	J-55	54.5	1354	1354	1230 ft ³ / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2721	2721	1050 ft ³ / CTS
Production	6	New	P-110	24	11455	11455	500' above intermediate casing
Tubing							
Liners							

Randell M. Kuchler

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	0.352	3520	2816	Class A/L	1.04 - 1.20
Production	6	8 1/2	0.400	14580	11664	Class A/H/L	1.04 - 2.10
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection
Page 2 of 3

09/15/2023

WW-6B
(10/14)

API NO. 47- _____
OPERATOR WELL NO. 14H _____
Well Pad Name: Radcliff _____

4704902513

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.

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): 17.33 (built)

22) Area to be disturbed for well pad only, less access road (acres): 5.19 (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.
Production: Calcium Carbonate, Fluid Loss, Extender, Dispersent, Viscosifier, Defoamer, POZ, Bonding Agent, Retarder, Anti-Setting/Suspension Agent

RECEIVED
Office of Oil and Gas

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.

AUG 09 2023

WV Department of
Environmental Protection

*Note: Attach additional sheets as needed.

WEST VIRGINIA GEOLOGICAL PROGNOSIS

Radcliff
GLO176
S-000118

Drilling Objectives:

County: Marcellus
Quad: Marion
Elevation: Glover Gap 1506 KB
Recommended Azimuth: 149.5 Degrees

1493 GL

Recommended LP to TD: TBD

ESTIMATED FORMATION TOPS

Formation	Top (TVD)	Base (TVD)	Lithology	Comments	Top RR	Base RR
Fresh Water Zone	1	906		FW @ 460,490,621,751.	1118	1118
Sewickley Coal	1200	1206	Coal			
Pittsburgh Coal	1297	1304	Coal	Not mined. TransEnergy reported depth at 1200' on 1H and 2H GL Elevation		
Big Lime	2470	2543	Limestone	SW @ 1856,2127,2247		
Big Injun	2543	2671	Sandstone			
Int. csg pt	2721					
Berea	2786	3361	Sandstone	Not shown within Storage		
Gordon	3361	3523	Silty Sand			
Bayard	3523	5964	Silty Sand	Base of Offset Well Perforations at 5870' TVD		
Alexander	5964	6409	Silty Sand			
Elks	6409	7350	Gray Shales and Silts			
Sonyea	7350	7546	Gray shale			
Middlesex	7546	7600	Shale			
Genesee	7600	7699	Gray shale interbedded			
Genesee	7699	7739	Black Shale			
Tully	7739	7769	Limestone			
Hamilton	7769	7872	Gray shale with some			
Marcellus	7872	7949	Black Shale			
Purcell	7916	7918	Limestone			
-Lateral Zone	7916			MRC2 Target		
Cherry Valley	7929	7931	Limestone			
Onondaga	7949		Limestone			

Target Thickness	78 feet
Max Anticipated Rock Pressure	2593 PSI

Comments:
Intermediate casing point is recommended beneath the Big Injun to shut off any water production from the Upper Devonian sands. Intermediate casing should be cemented into the surface string, per WV regulations.

RECOMMENDED CASING POINTS

Fresh Water/Coal: CSG OD 13 3/8
Intermediate 1: CSG OD 9 5/8
Production: CSG OD 5 1/2

Planned Depth GL:
CSG DEPTH: 1354 50' Below Pittsburgh
CSG DEPTH: 2721 50' Below Big Injun
CSG DEPTH: @ TD

RECEIVED
Office of Oil and Gas

AUG 09 2023

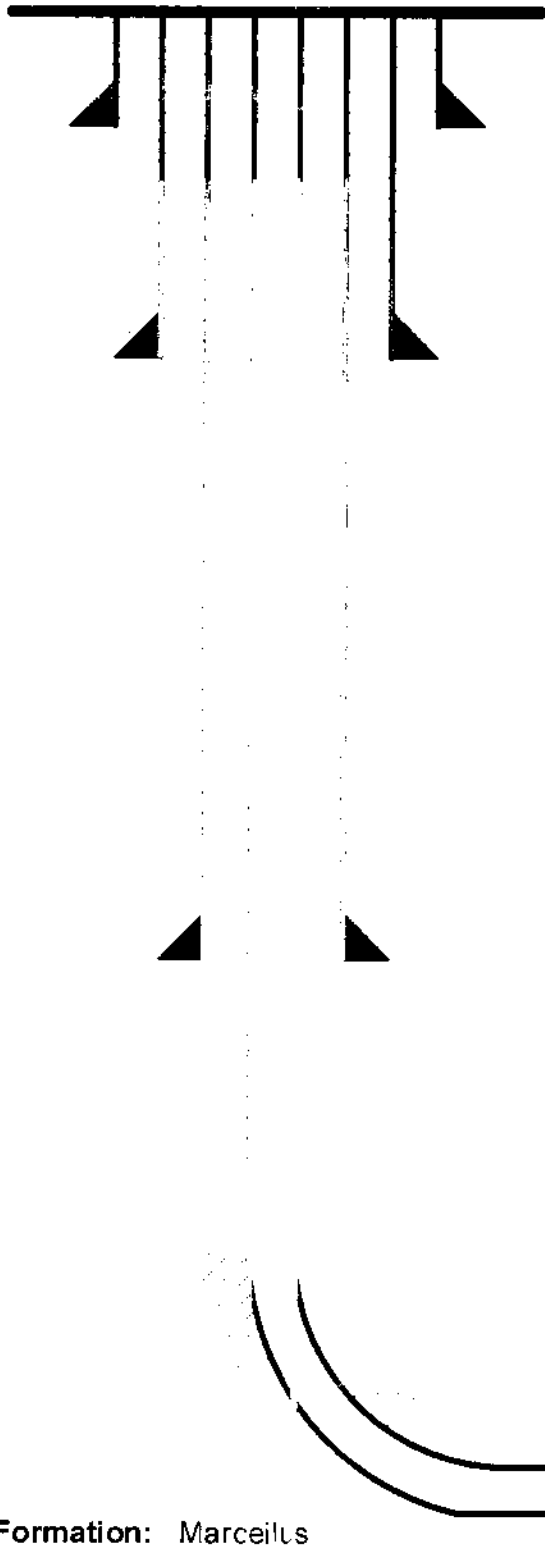
WV Department of
Environmental Protection

EQT Production

Wellbore Diagram

Well: Radcliff 14H
Pad: Radcliff
Elevation: 1493' GL 1506' KB

County: Marion
State: West Virginia
4704902513



Conductor @ 40'
26", 85.6, A252 GR3 Bare, cement to surface w/ Class A/L

Surface @ 1,354'
13-3/8", 54.5#, J-55, cement to surface w/ Class A/L

Intermediate @ 2,721'
9-5/8", 36#, J-55, cement to surface w/ Class A/L

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

Production @ 11,455' MD / 7,916' TVD
6", 24#, P-110, cement to 500' inside 9-5/8" w/ Class A/H/L

Formation: Marcellus

09/15/2023
NOT TO SCALE



west virginia department of environmental protection

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

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

March 18, 2014

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

Re: Cement Variance Request

Dear Sir or Madam,

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

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

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

Sincerely,

James Peterson

Environmental Resources Specialist / Permitting

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

Promoting a healthy environment.

09/15/2023



west virginia department of environmental protection

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

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

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

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

REPORT OF THE OFFICE

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

FINDINGS OF FACT

1.) Nabors Completion & Production Services Co. proposes the following cement blend:

- 2% Calcium Chloride (Accelerator)
- 0.25 % Super Flake (Lost Circulation)
- 94% Type "1" Cement
- 5.20 % Water

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

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

Promoting a healthy environment.

09/15/2023

CONCLUSIONS OF LAW

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

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

ORDER

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

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

IN THE NAME OF THE STATE OF WEST VIRGINIA

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



James Martin, Chief
Office of Oil and Gas

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023



July 27, 2023

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

Re: Casing on Radcliff 14H

Dear Mr. Brewer,

The 13-3/8" surface casing will be set at 1,354' KB, 50' below the deepest workable coal seam, 603' below the deepest fresh water.

The 9-5/8" intermediate string will be set at 2,721' 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.

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

09/15/2023



July 27, 2023

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
Radcliff 14H 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,

John Zavatchan
Project Specialist - Permitting

Enc.

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023



west virginia department of environmental protection

Office of Oil and Gas
601 57th 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) ORDER NO. 2022-14
SECTION 11.5 AND LEGISLATIVE RULE)
35CSR8 SECTION 9.2.h.8.,)
RELATING TO THE CEMENTING)
OF OIL AND GAS WELLS)**

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.

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. Office of Oil and Gas
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. AUG 09 2022
WV Department of
Environmental Protection
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

09/15/2023

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

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

4704902513

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

July 27, 2023

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

Page 1 of 2

09/15/2023

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 Radcliff pad: 4H, 6H, 8H, 10H, 12H, 14H, 16H and 18H.

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

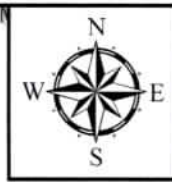
EQT will provide information relating to the hydraulic fracturing schedule, communication with other operators, and ongoing monitoring of the work upon request of OOG or immediately in the event of any noted abnormalities.

AUG 06 2023

WV Department of
Environmental Protection Page 2 of 2

09/15/2023

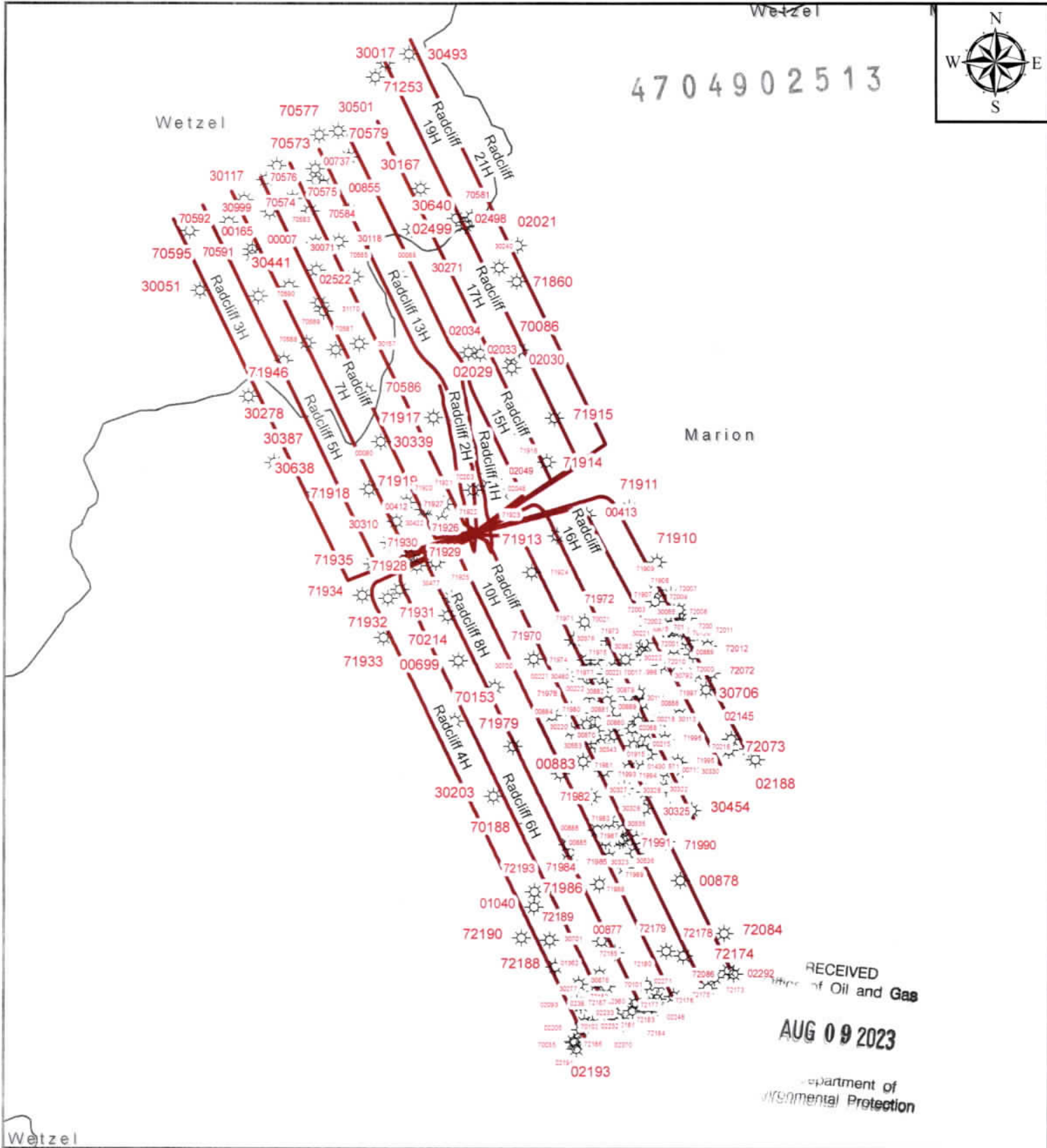
Wetzel



4704902513

Wetzel

Marion



RECEIVED
Office of Oil and Gas
AUG 09 2023
Department of Environmental Protection

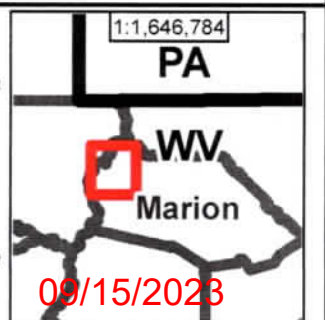
Wetzel
EQT Corporation
625 Liberty Avenue
Pittsburgh, PA 15222

Radcliff
Vertical Offsets and Foreign Laterals within 500'

Legend
☀ Foreign_Offset_Wells
Well Lateral_FM
Formation
— Genesee
— Marcellus
— Utica



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



WW-9
(4/16)

4704902513

API Number 47 - _____ - _____
Operator's Well No. Radcliff 14H _____

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) Bartholomew Fork Quadrangle Glover Gap

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: N/A

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

Additives to be used in drilling medium? See Attached

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

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

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

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

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

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

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

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

Subscribed and sworn before me this 27th day of July, 2023

[Signature] Notary Public

My commission expires March 9, 2024

Commonwealth of Pennsylvania - Notary Seal
Rebecca Shrum, Notary Public
Beaver County
My commission expires March 9, 2024
Commission number 1267706
Member, Pennsylvania Association of Notaries

09/15/2023

4704902513

WW-9 Attachment

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

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

Additives to be used in drilling medium?

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

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

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: *Randall M. Buckley*

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.

RECEIVED
Office of Oil and Gas

AUG 09 2023

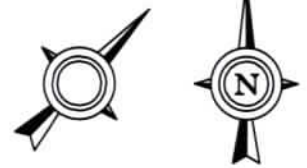
WV Department of
Environmental Protection

Title: Oil & Gas Inspector

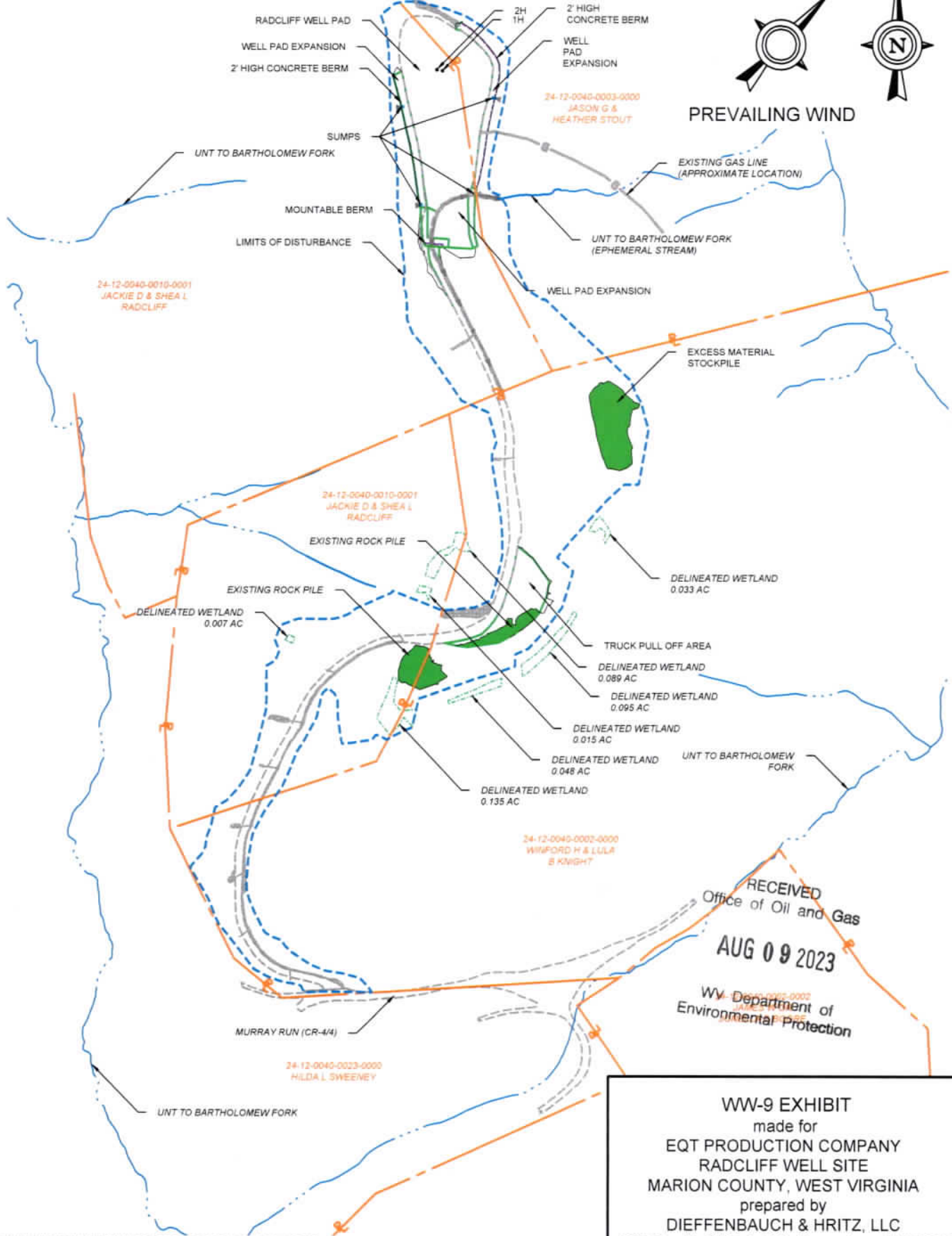
Date: Aug. 2, 2023

Field Reviewed? Yes No

4704902513



PREVAILING WIND



SCALE: 1:350 PLOTTED: 6/11/2021 11:35 AM FILE: X:\OIL AND GAS\EQT\2020\20070-028 - RADCLIFF\CADD (K DRIVE) - \WV\TO CLIENT\DWG\RADCLIFF_WW9 EXHIBIT.DWG

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



RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

WW-9 EXHIBIT
made for
EQT PRODUCTION COMPANY
RADCLIFF 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
09/15/2023

EQT Production Water Plan

Offsite Disposals for Unconventional Wells

Facility Name	Address	Address 2	City	State	Zip	Phone	County	State	Permit Number
CWS Trucking Inc.	P.O. Box 391		Williamstown	WV	26187	740-516-3586	Noble	OH	3390
Broad Street Energy LLC	37 West Broad Street	Suite 1100	Columbus	OH	43215	740-516-5381	Washington	OH	8462
LAD Liquid Assets Disposal Inc.	226 Rankin Road		Washington	PA	15301	724-350-2760	Ohio	WV	USEPA WV 0014
Triad Energy	PO Box 430		Reno	OH	45773	740-516-6021 740-374-2940	Noble	OH	4037
Tri County Waste Water Management, Inc.	1487 Toms Run Road		Holbrook	PA	15341	724-627-7178 724-499-5647	Greene	PA	TC-1009
King Excavating Co. Advance Waste Services	101 River Park Drive		New Castle	PA	16101		Lawrence	PA	PAR000029132
Waste Management - Meadowfill Landfill	Rt. 2, Box 68 Dawson Drive		Bridgeport	WV	16330	304-326-6027	Harrison	WV	SWF-1032-98 Approval #100785WV
Waste Management - Northwestern Landfill	512 E. Dry Road		Parkersburg	WV	26104	304-428-0602	Wood	WV	SWF-1025 WV-0109400
APEX Landfill	11 County Road 78	PO Box 57	Amsterdam	OH	43903	740-543-4389	Jefferson	OH	06-08438
Advanced Disposal - Chestnut Valley Landfill	1184 McClellandtown Road		McClellandtown	PA	15458	724-437-7336	Fayette	PA	100419
Westmoreland Sanitary Landfill	901 Tyrol Boulevard		Belle Vernon	PA	15012	724-929-7694	Westmoreland	PA	100277
Austin Master Services	801 North 1st Street		Martins Ferry	OH	43935	740-609-3800	Belmont	OH	2014-541
Belmont Solids Control	77505 Cadiz-New Athers Road		Cadiz	OH	43907	740-942-1739	Harrison	OH	2015-511
Diversified Resources	3111 Braun Rd.		Belpre	OH	45714	740-401-0413	Washington	OH	
Buckeye Brine	23986 Airport Road		Coshocton	OH	43812	740-610-1512 724-591-4393	Coshocton	OH	34-031-27177 34-031-27178 34-031-27241
Central Environmental Services	28333 West Belpre Pike		Coolville	OH	45723	304-488-0701	Athens	OH	
Nuverra - Nichols	10555 Veto Road		Belpre	OH	45714	330-232-5041	Washington	OH	34-119-2-8776
Nuverra - Goff	9350 East Pike Road		Norwich	OH	43767	330-232-5041	Muskingum	OH	34-167-2-3862
Nuverra - Wolf	5480 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-1893
Nuverra - Pander	3310 State Route 5		Newton Falls	OH	44444	330-232-5041	Trumbull	OH	34-155-2-3795
Nuverra - AnnaRock D-1	3549 Warner Road		Fowler	OH	44418	330-232-5041	Trumbull	OH	34-155-2-2403

WV Department of
 Environmental Protection

AUG 09 2023

4704902513

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

WV Department of
Environmental Protection

AUG 09 2023

RECEIVED
Office of Oil and Gas

4704902513

Topo Quad: Glover Gap

Scale: 1" = 1000' 4704902513

County: Marion

Date: September 29, 2021

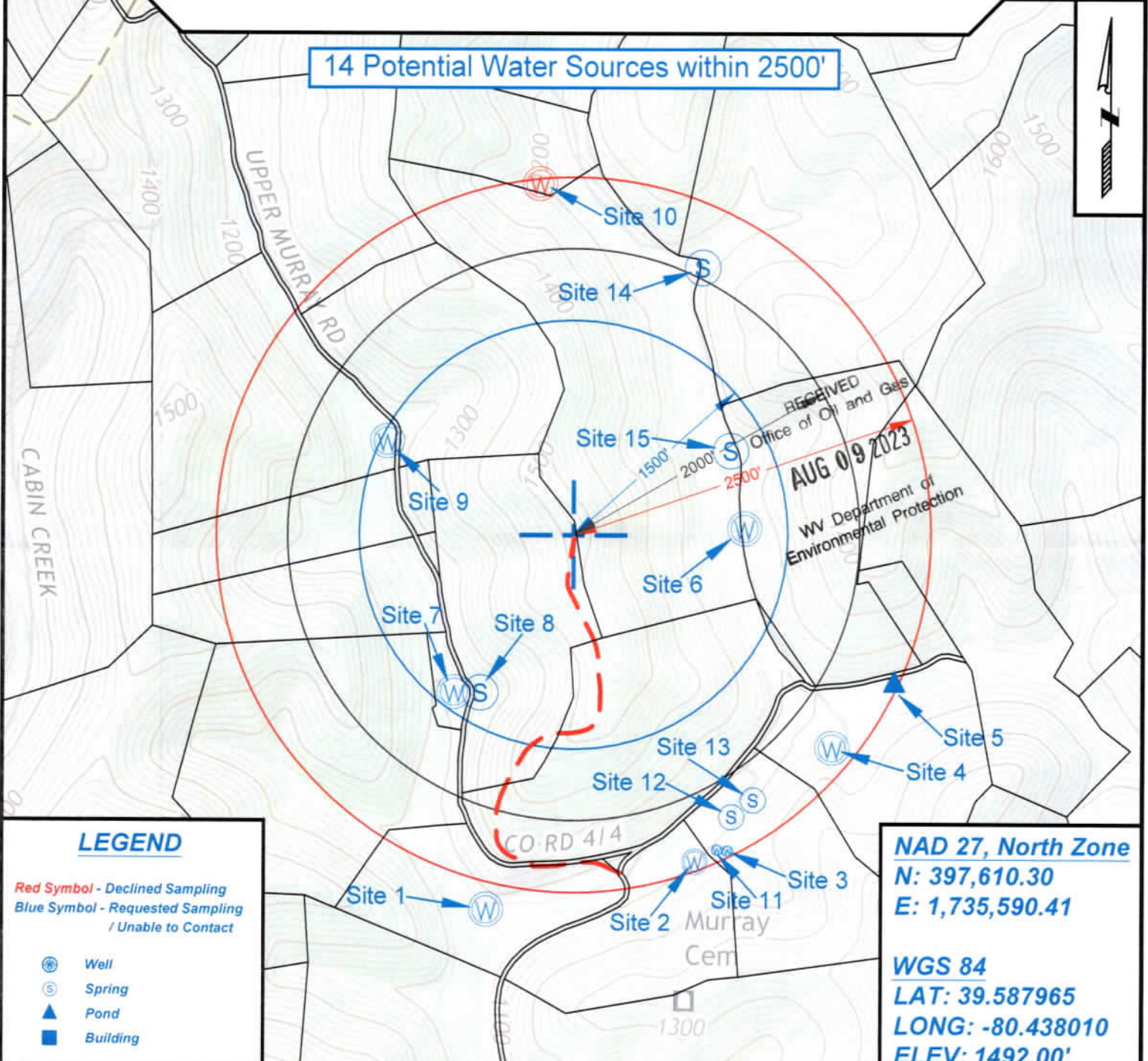
District: Mannington

Project No: 113-18-M-21

Water

Radcliff South Well Pad

14 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: 397,610.30
 E: 1,735,590.41

WGS 84
 LAT: 39.587965
 LONG: -80.438010
 ELEV: 1492.00'



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

09/15/2023



SITE SAFETY AND ENVIRONMENTAL PLAN

Radcliff Well Site

Mannington
Marion County, WV

Wells: 1H - 47-049-02281, 2H - 47-049-02282, 4H, 6H, 8H, 10H,
12H- 47-049-02510, 14H, 16H, 18H

Prepared By: Donny Prater, CSP, Health and Safety Sciences, LLC

Approved By: Scott M. Held, Senior Safety Coordinator

Created Date: 8-Apr-21

John F. Zavatchan Jr.

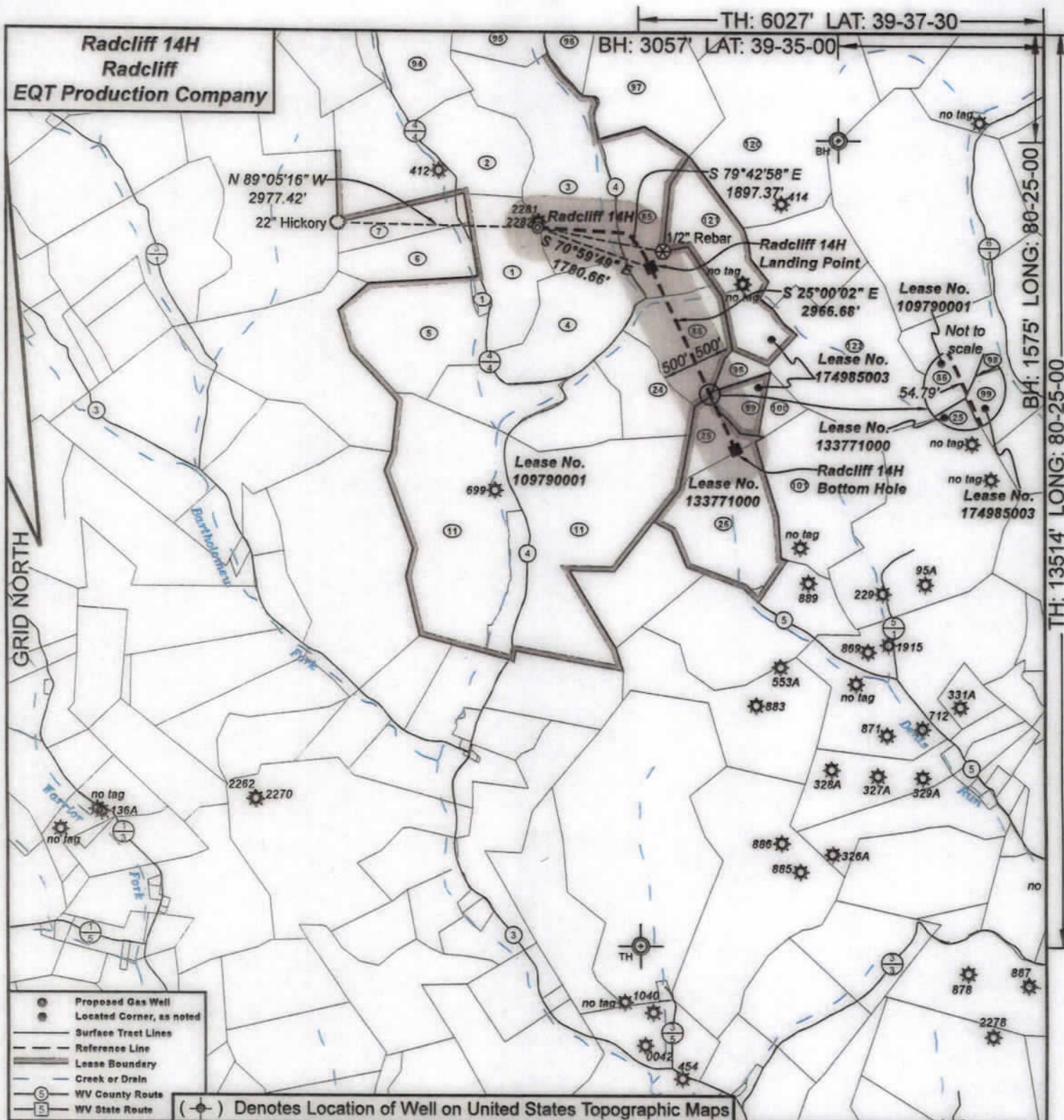
John Zavatchan
Project Specialist - Permitting
EQT Production Company

Randall M. Kirchberg

Digitally signed by Randall M.
Kirchberg
Date: 2023.08.03 15:50:13 -04'00'

Oil and Gas Inspector
WVDEP Office of Oil and Gas

09/15/2023



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: 113-21
 DRAWING NO: Radcliff 14H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: July 17 20 23
 OPERATOR'S WELL NO.: Radcliff 14H
 API WELL NO
 47 - 049 - 02513
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1493' WATERSHED: Bartholomew Fork QUADRANGLE: Glover Gap
 DISTRICT: Mannington COUNTY: Marion

SURFACE OWNER: Jackie D. & Sheila L. Radcliff ACREAGE: 46.08
 ROYALTY OWNER: Rebecca R. Shuttlesworth, et al. LEASE NO: 109790001 ACREAGE: 1090

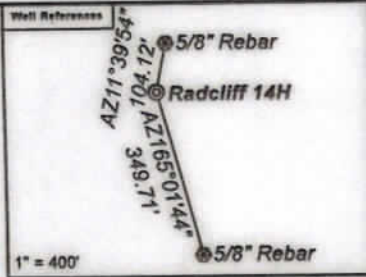
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7916'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive
 Canonsburg, PA 15317 Clarksburg, WV 26301

09/15/2023

Radcliff 14H
Radcliff
EQT Production Company

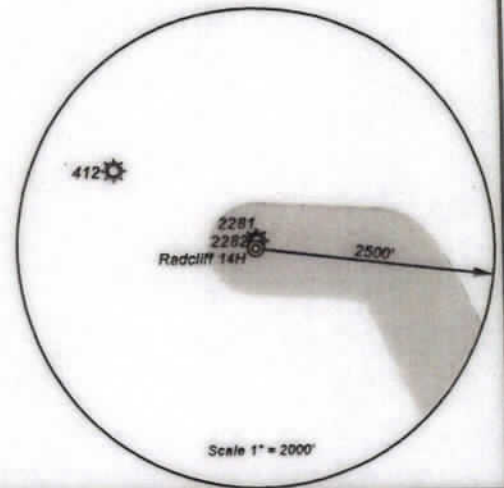
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	40	10.1	Marion	Mannington	Jackie D. & Sheila L. Radcliff	48.06
2	40	10	Marion	Mannington	Shelly L. Nelson	43.05
3	40	3	Marion	Mannington	Jason G. & Heather R. Stout	99.75
4	40	2	Marion	Mannington	Lula B. Knight	56.32
5	40	11	Marion	Mannington	Clarence W. Sweeney	63
6	40	12	Marion	Mannington	Jackie D. & Sheila L. Radcliff	27.35
7	40	13	Marion	Mannington	Shelly L. Nelson	29.75
11	39	4	Marion	Mannington	Coastal Forest Resources Company	245.722
24	40	2.1	Marion	Mannington	Jason G. & Heather R. Stout	29.58
25	39	3	Marion	Mannington	Thomas G. & Theresa A. Jones	10.25
26	39	5	Marion	Mannington	Thomas G. & Theresa A. Jones	61.85
85	26	16	Marion	Mannington	Jason G. & Heather R. Stout	48.12
86	39	2	Marion	Mannington	Lula B. Knight	43.29
94	40	9	Marion	Mannington	Karl A. Gouzd	35.32
95	40	4	Marion	Mannington	EBN-EM LLC	20.8
96	NA	NA	Marion	Mannington	Tax info Not Available	NA
97	26	13	Marion	Mannington	Jason G. & Michelle R. Stout	95.9
98	39	15	Marion	Mannington	Jason G. & Michelle R. Stout	7.5
99	26	17	Marion	Mannington	Jason G. & Michelle R. Stout	57
100	39	16	Marion	Mannington	Jason G. & Michelle R. Stout	7.351
101	39	7	Marion	Mannington	Dennis Markel & John Pheasant	84
120	26	12	Marion	Mannington	EBN-EM LLC	152.25
121	26	17	Marion	Mannington	Jason G. & Michelle R. Stout	57
122	39	1	Marion	Mannington	Albert C. Woods Heins	90.6



Notes:
 Radcliff 14H coordinates are
 NAD 83 N: 397,624.10 E: 1,704,139.36
 NAD 83 Lat: 39.587899 Long: -80.438054
 NAD 83 UTM N: 4,382,170.48 E: 548,254.80
 Radcliff 14H Landing Point coordinates are
 NAD 83 N: 397,044.28 E: 1,705,822.88
 NAD 83 Lat: 39.586355 Long: -80.432059
 NAD 83 UTM N: 4,382,002.39 E: 548,770.68
 Radcliff 14H Bottom Hole coordinates are
 NAD 83 N: 394,355.57 E: 1,707,076.78
 NAD 83 Lat: 39.579010 Long: -80.427512
 NAD 83 UTM N: 4,381,189.62 E: 549,166.34
 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.

- Radcliff**
- Radcliff 18H
 - Radcliff 16H
 - Radcliff 14H
 - Radcliff 12H
 - Radcliff 10H
 - Radcliff 8H
 - Radcliff 6H
 - Radcliff 4H

Lease No.	Owner	Acres
109790001	Rebecca R. Shuttlesworth, et al.	1090
174985003	Country Roads Minerals, LLC, et al.	59
133771000	Bounty Minerals LLC, et al.	72.75



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: 113-21
 DRAWING NO: Radcliff 14H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: July 17 20 23
 OPERATOR'S WELL NO.: Radcliff 14H
 API WELL NO
 47 - 049 - 02513
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1493' WATERSHED: Bartholomew Fork QUADRANGLE: Glover Gap
 DISTRICT: Mannington COUNTY: Marion
 SURFACE OWNER: Jackie D. & Sheila L. Radcliff ACREAGE: 1090
 ROYALTY OWNER: Rebecca R. Shuttlesworth, et al. LEASE NO: 109790001 ACREAGE: 1090
 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: 7916'
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 427 Midstate Drive
 Canonsburg, PA 15317 Clarksburg, WV 26301

08/15/2023

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

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

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

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

See Attached

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

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

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

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 *John F. Zavatchan Jr.*
 Its: Project Specialist - Permitting

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page	
<u>155790001</u>	<u>Rebecca R. Shuttlesworth, et al.</u> Rebecca R. Shuttlesworth, Power of Attorney for R. Lee Lee Gwinn, Sr., Widower American Shale Development, Inc. Republic Partners VIII, LLC Republic Energy Ventures, LLC American Shale Development, Inc.	1000 ac	American Shale Development, Inc. Republic Energy Ventures, LLC Republic Partners VIII, LLC EQT Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1117/329 AB 47/469 AB 51/525 DB 1228/1	Confirmatory Deed
<u>174985003</u>	<u>Country Roads Minerals, LLC, et al.</u> Country Roads Minerals, LLC	59 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1291/535	
<u>133771000</u>	<u>Bounty Minerals LLC, et al.</u> Velma Clark, aka Velma M. Clark, widow American Shale Development, Inc. Republic Partners VIII, LLC Republic Energy Ventures, LLC American Shale Development, Inc.	72.75 ac	American Shale Development Inc. Republic Energy Ventures, LLC Republic Partners VIII, LLC EQT Production Company EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1151/442 AB 47/469 AB 51/525 DB 1228/1	

WV Department of
Environmental Protection

AUG 09 2023

RECEIVED
Office of Oil and Gas

4704902513



June 27, 2023

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

Re: Radcliff 14H Gas Well
Mannington District, Marion County, WV

Dear Mr. Brewer,

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

Sincerely,

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

John Zavatchan
Project Specialist - Permitting

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

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

Date of Notice Certification: 7/27/2023

API No. 47- _____
Operator's Well No. 14H _____
Well Pad Name: Radcliff

Notice has been given:

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>548,254.796</u>
County:	<u>Marion</u>		Northing:	<u>4,382,170.479</u>
District:	<u>Mannington</u>	Public Road Access:		<u>CR 4</u>
Quadrangle:	<u>Glover Gap</u>	Generally used farm name:		<u>Jackie D. Radcliff and Sheila L. Radcliff</u>
Watershed:	<u>Bartholomew Fork</u>			

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p align="center">OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p> <p><input checked="" type="checkbox"/> RECEIVED</p>
--	--

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

Required Attachments:

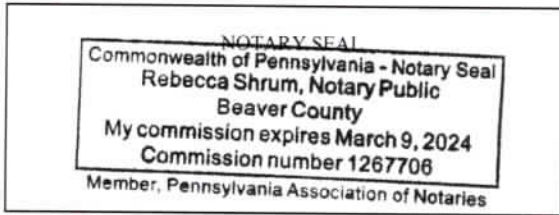
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

09/15/2023

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 - Perfitting</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 27th day of July 2023.

Rebecca Shrum Notary Public

My Commission Expires March 9, 2024

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

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

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

Date of Notice: 7/27/2023 **Date Permit Application Filed:** 8/18/2023

Notice of:

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

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

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

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

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

SURFACE OWNER(s)

Name: See Attached List
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: See Attached List
Address: _____

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: N/A
Address: _____

COAL OWNER OR LESSEE

Name: See Attached List
Address: _____

COAL OPERATOR

Name: _____
Address: _____

SURFACE OWNER OF WATER AND/OR WATER PURVEYOR

Name: See Attached List
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: _____
Address: _____

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
AUG 09 2023
Department of Environmental Protection

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

RECEIVED
Office of Oil and Gas
AUG 09 2023
Department of Environmental Protection

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.

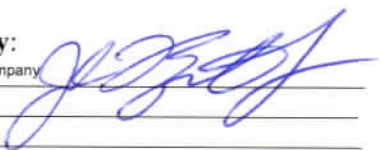
RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

WW-6A
(8-13)

4704902513
API NO. 47- -
OPERATOR WELL NO. 14H
Well Pad Name: Radcliff

Notice is hereby given by:

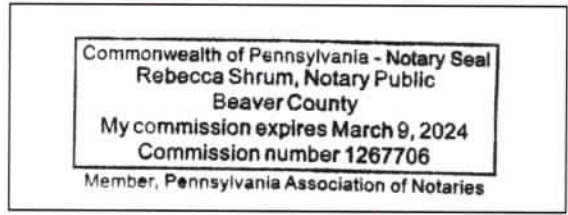
Well Operator: EQT Production Company
Telephone: 724-746-9073
Email: jzavatchan@eqt.com



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

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.



Subscribed and sworn before me this 27th day of July, 2023.
Rebecca Shrum Notary Public
My Commission Expires March 9, 2024

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

09/15/2023

4704902513

Surface Owners:

Jackie D. Radcliff and Sheila L. Radcliff
161 Cabin Creek Rd.
Mannington, WV 26582

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

Jason G. Stout
637 Upper Murray Rd.
Mannington, WV 26582

Heather R. Stout
546 Upper Murray Rd.
Mannington, WV 26582

Lula B. Knight
638 Upper Murray Rd.
Mannington, WV 26582

Clarence W. Sweeney, et. al.
PO Box 219
Fairmont, WV 26555

Coal Owners:

Consol Mining Company
1000 Consol Energy Drive
Canonsburg, PA 15317

Douglas A. Gwinn
95 Sabraton Avenue
Fairmont, WV 26554

Rebecca Shuttlesworth
468 Katy Road
Fairmont, WV 26554

Cathie L. Ebert
506 Katy Road
Fairmont, WV 26554

Mike Ross, Inc.
PO Box 219
Coalton, WV 26257

I.L. Morris
PO Box 397
Glennville, WV 26351

Cynthia Ann Gamer
314 Woodridge Drive
Locust Grove, GA 3024

Amy Renee Russell
141 Lossie Lane
McDonough, GA 30253

Charles Stewart
181 East Chestnut Street
Blairsville, PA 15717

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

4704902513

James R. Batson
3 Red Sky Drive
Morgantown, WV 26508

Sandra F. Hulsey
PO Box 238
Worthington, WV 26591

Sharon D. Wright
209 Jefferson Street
Mannington, WV 26582

William Williamson
21811 Aquasco Road
Aquasco, MD 20608

Water Supply Owners within 1,500':

Jason and Michelle Stout
637 Upper Murray Rd.
Mannington WV 26582

Jackie D. Radcliff and Sheila L. Radcliff
161 Cabin Creek Rd.
Mannington, WV 26582

Shelly Nelson
325 Cabin Creek Rd.
Mannington WV 26582

WEVEC
Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

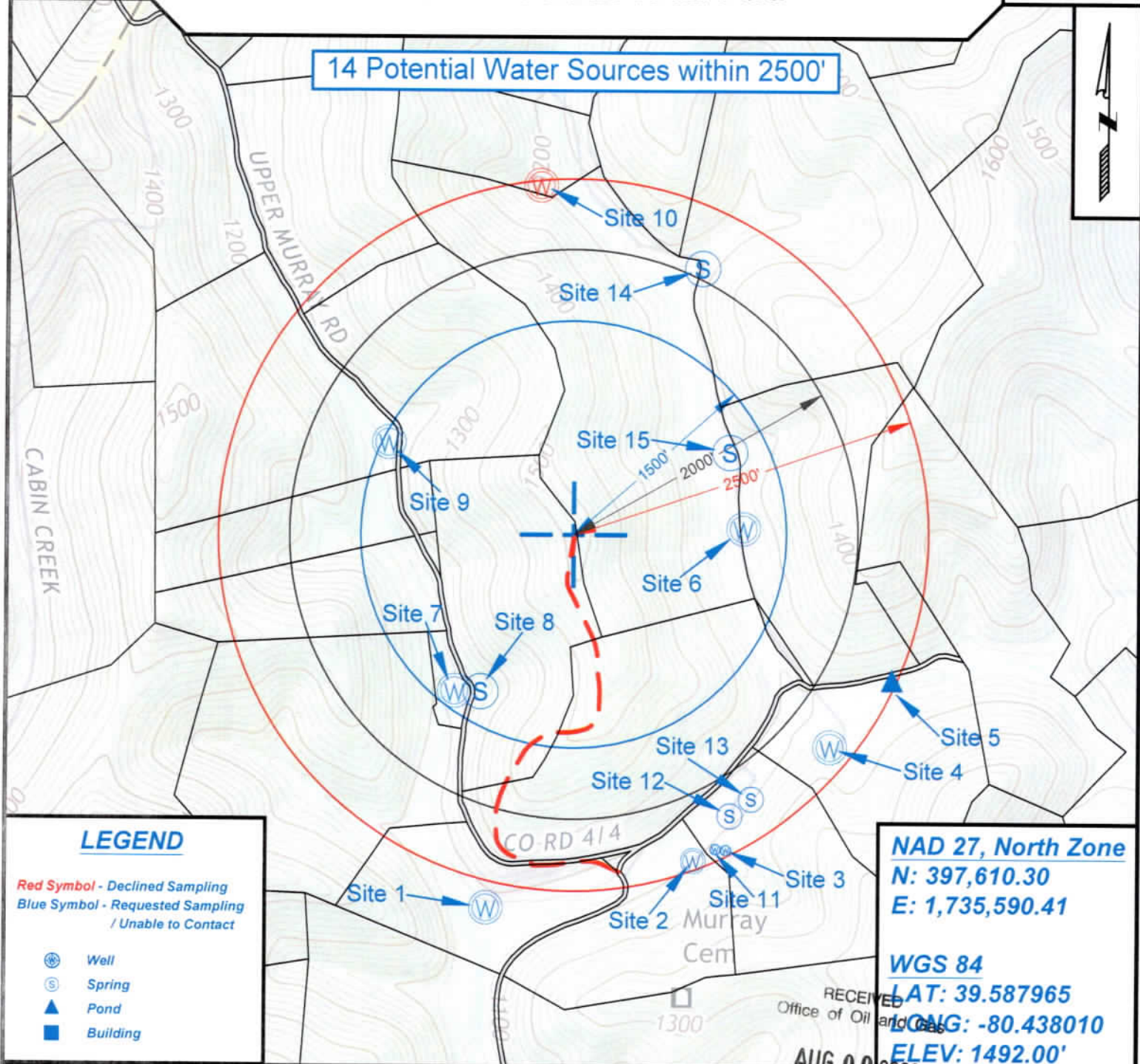
4704902513

Topo Quad: Glover Gap Scale: 1" = 1000'
 County: Marion Date: September 29, 2021
 District: Mannington Project No: 113-18-M-21

Water

Radcliff South Well Pad

14 Potential Water Sources within 2500'



LEGEND

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

- Well
- Spring
- Pond
- Building

NAD 27, North Zone
 N: 397,610.30
 E: 1,735,590.41

WGS 84
 LAT: 39.587965
 LONG: -80.438010
 ELEV: 1492.00'

RECEIVED
 Office of Oil and Gas

AUG 09 2023



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:
 WV Department of Environmental Protection
EQT Production Company
 400 Woodcliff Drive
 Canonsburg, PA 15317
 09/15/2023



Table 1 – Water Source Identification

EQT Well Pad Name: **Radcliff South**

Submittal Date: **7/14/2023**

EQT Well Number: _____

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

Site Number: **1** Distance from Gas Well (feet): **2690.72**

Surface Owner / Occupant: **Richard Beaty** (formerly Sweeney)

Address: **481 Upper Murray Rd. Mannington WV 26582** Phone #: **304-986-2878**

Field Located Date: **9/27/2018** Owner home during survey (yes/no): **Yes**

Coordinates: **39.345062, -80.262371** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **9/26/2018** 2nd: **9/29/2021** Door Hanger Left: _____

Comments: **Water well located behind mobile home next to outbuilding. Very nice man.**

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

Site Number: **2** Distance from Gas Well (feet): **2460.96**

Surface Owner / Occupant: **James and Jonella Boore**

Address: **468 Upper Murray Rd. Mannington WV 26582** Phone #: **304-986-1517**

Field Located Date: **9/27/2018** Owner home during survey (yes/no): **Yes**

Coordinates: **39.345410, -80.260514** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **9/26/2018** 2nd: **9/30/2021** Door Hanger Left: _____

Comments: **Water well located on NE side of house. Very friendly.**

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

Site Number: **3** Distance from Gas Well (feet): **2485.91**

Surface Owner / Occupant: **Heather Stout**

Address: **546 Upper Murray Rd. Mannington WV 26582** Phone #: **304-986-1577**

Field Located Date: **9/27/2018** Owner home during survey (yes/no): **No**

Coordinates: **39.345487, -80.260221** (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: **9/26/2018** 2nd: **9/30/2021** Door Hanger Left: **Yes**

Comments: **Spoke to friend there. Said she would ask and be in touch. Water well located behind house.**

(Insert additional pages as needed)

RECEIVED
Office of Oil and Gas
Further contact attempts to be made by EQT's third party pre-drill sampling lab)

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

Site Number: 4 Distance from Gas Well (feet): 2376.91

Surface Owner / Occupant: Winford Knight

Address: 638 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1807

Field Located Date: 9/27/2018 Owner home during survey (yes/no): Yes

Coordinates: 39.350209, -80.255303 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: _____

Comments: Water well located beside aluminum wheelchair ramp. Unable to see water well. Nice elderly couple.

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

Site Number: 5 Distance from Gas Well (feet): 2461.76

Surface Owner / Occupant: Winford Knight

Address: 638 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1807

Field Located Date: 9/27/2018 Owner home during survey (yes/no): Yes

Coordinates: 39.350687, -80.254806 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: _____

Comments: Pond located.

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

Site Number: 6 Distance from Gas Well (feet): 1231.83

Surface Owner / Occupant: Jason and Michelle Stout

Address: 637 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1087

Field Located Date: 10/08/2018 Owner home during survey (yes/no): Yes

Coordinates: 39.351716, -80.260111 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Spoke to Michelle. Said she would ask and be in touch. Located water well on 10/08/2018.

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

Site Number: 7 Distance from Gas Well (feet): 1367.33

Surface Owner / Occupant: Jackie Radcliff

Address: 161 Cabin Creek Rd. Mannington WV 26582 Phone #: 304-986-3968

Field Located Date: 9/27/2018 Owner home during survey (yes/no): Yes

Coordinates: 39.351716, -80.260111 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Water well located 9/27/2018 on upper end of house.

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

RECEIVED
Office of Air & Water Quality
AUG 09 2023

WV Department of Environmental Protection

09/15/2023

Site Number: 8 Distance from Gas Well (feet): 1318.14

Surface Owner / Occupant: Jackie Radcliff

Address: 161 Cabin Creek Rd. Mannington WV 26582 Phone #: 304-986-3968

Field Located Date: 9/27/2018 Owner home during survey (yes/no): Yes

Coordinates: 39.350548, -80.262547 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: _____

Comments: Spring located next to road coming off hill.

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

Site Number: 9 Distance from Gas Well (feet): 1416.84

Surface Owner / Occupant: Shelly Nelson (Formerly Sandor Frecska)

Address: 325 Cabin Creek Rd. Mannington WV 26582 Phone #: 304-986-1807

Field Located Date: 9/27/2018 Owner home during survey (yes/no): Yes

Coordinates: 39.350687, -80.254806 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: _____

Comments: Water well located next to driveway beside garage.

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

Site Number: 10 Distance from Gas Well (feet): 2429

Surface Owner / Occupant: EBX-EM LLC

Address: 6575 W Loop S Ste 300, Bellaire TX 77401 Phone #: _____

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

Coordinates: 39.354067, -80.261879 (decimal degrees – NAD 83)

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

Comments: Property behind gate. Has water well. Formerly Henry Deem - called on 10/4/2021 & said he had sold property. Signature page received 10/11/2021 declining sampling. Property was granted to EBX-EM LLC on 9/15/2021 (DB 1289/894).

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

Site Number: 11 Distance from Gas Well (feet): 2448.09

Surface Owner / Occupant: Heather Stout

Address: 546 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1577

Field Located Date: 10/15/2018 Owner home during survey (yes/no): No

Coordinates: 39.345492, -80.260315 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Stout's second water well located at end of house.

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

AUG 09 2023

WV Department of Environmental Protection

09/15/2023

Site Number: 12 Distance from Gas Well (feet): 2290.16

Surface Owner / Occupant: Heather Stout

Address: 546 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1577

Field Located Date: 10/15/2018 Owner home during survey (yes/no): No

Coordinates: 39.345721, -80.260191 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Spring located near garage in fence line.

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

Site Number: 13 Distance from Gas Well (feet): 2272

Surface Owner / Occupant: Heather Stout

Address: 546 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1577

Field Located Date: 10/15/2018 Owner home during survey (yes/no): No

Coordinates: 39.345838, -80.260001 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Spring in tree line next to barn. Must go through electric fence. Very muddy.

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

Site Number: 14 Distance from Gas Well (feet): 2078.98

Surface Owner / Occupant: Jason and Michelle Stout

Address: 637 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1087

Field Located Date: 10/08/2018 Owner home during survey (yes/no): _____

Coordinates: 39.353512, -80.260514 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Stream located on upper end of Stout's property. Very rough and muddy road.

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

Site Number: 15 Distance from Gas Well (feet): 1270.14

Surface Owner / Occupant: Jason and Michelle Stout

Address: 637 Upper Murray Rd. Mannington WV 26582 Phone #: 304-986-1087

Field Located Date: 10/08/2018 Owner home during survey (yes/no): _____

Coordinates: 39.352244, -80.260243 (decimal degrees – NAD 83)

Contact Attempts (Date): 1st: 9/26/2018 2nd: 9/30/2021 Door Hanger Left: Yes

Comments: Stream located closer to Stout's house.

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

RECEIVED
 AUG 09 2023

WV Department of
 Environmental Protection

09/15/2023

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: 04/27/2023 **Date Permit Application Filed:** 8/8/2023

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 Attached List
Address: _____

Name: See Attached List
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: 548254.796
County: Marion Northing: 4382170.479
District: Mannington Public Road Access: CR 4/4
Quadrangle: Glover Gap Generally used farm name: Jackie D. Radcliff and Sheila L. Radcliff
Watershed: Bartholomew Fork

This Notice Shall Include:

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

Notice is hereby given by:

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

Authorized Representative: John Zavatchan
Address: 400 Woodcliff Drive
Canonsburg, PA 15317
Telephone: 724-746-9073
Email: jzavatchan@eqt.com
Facsimile: 412-395-2974

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Office of Oil and Gas
AUG 09 2023

09/15/2023

4704902513

Surface Owners:

Jackie D. Radcliff and Sheila L. Radcliff
161 Cabin Creek Rd.
Mannington, WV 26582

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

Jason G. Stout
637 Upper Murray Rd.
Mannington, WV 26582

Heather R. Stout
546 Upper Murray Rd.
Mannington, WV 26582

Lula B. Knight
638 Upper Murray Rd.
Mannington, WV 26582

Clarence W. Sweeney, et. al.
PO Box 219
Fairmont, WV 26555

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

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: 7/27/2023 Date Permit Application Filed: 8/18/2023

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

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>548,254.796</u>
County: <u>Marion</u>	Northing: <u>4,382,170.479</u>
District: <u>Mannington</u>	Public Road Access: <u>CR 4/4</u>
Quadrangle: <u>Glover Gap</u>	Generally used farm name: <u>Jackie D. Radcliff and Sheila L. Radcliff</u>
Watershed: <u>Bartholomew Fork</u>	

This Notice Shall Include:

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

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

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
AUG 09 2023
WV Department of
Environmental Protection

09/15/2023

4704902513

Surface Owners:

Jackie D. Radcliff and Sheila L. Radcliff
161 Cabin Creek Rd.
Mannington, WV 26582

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

Jason G. Stout
637 Upper Murray Rd.
Mannington, WV 26582

Heather R. Stout
546 Upper Murray Rd.
Mannington, WV 26582

Lula B. Knight
638 Upper Murray Rd.
Mannington, WV 26582

Clarence W. Sweeney, et. al.
PO Box 219
Fairmont, WV 26555

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023

4704902513



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Gregory L. Bailey, P.E.
Interim
State Highway Engineer

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

April 24, 2023

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

Subject: DOH Permit for the Radcliff Pad, Marion County
Radcliff 14H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2021-0390 which has been issued to EQT Production for access to the State Road for a well site located off Marion County Route 4/4 SLS MP 0.15.

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 revised March 06, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

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

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

Cc: Becky Shrum
EQT Production
CH, OM, D-4
File

AUG 09 2023
WV Department of
Environmental Protection

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

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

RECEIVED
Office of Oil and Gas

AUG 09 2023

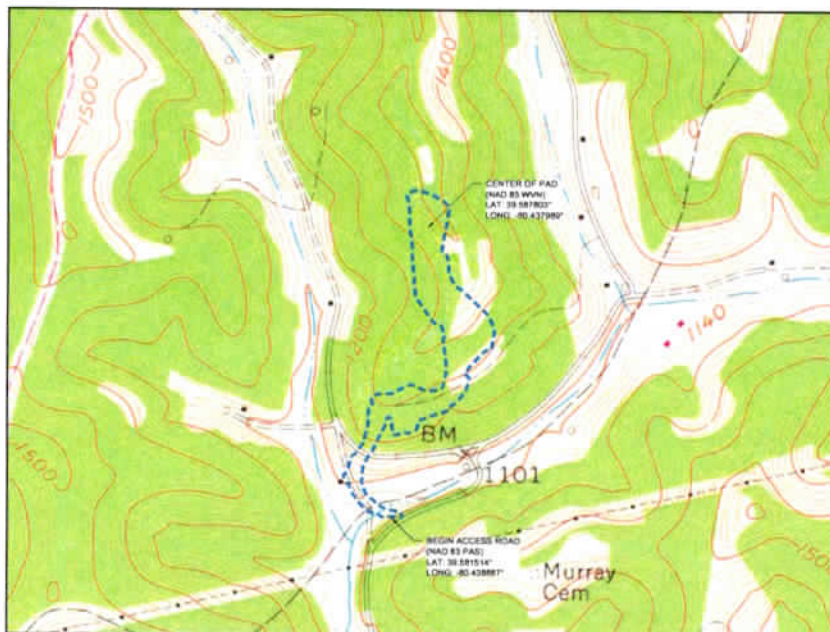
WV Department of
Environmental Protection

09/15/2023

SITE AS-BUILT RADCLIFF WELL SITE

MARION COUNTY, WEST VIRGINIA

EQT PRODUCTION COMPANY



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

LOCATION MAP



SHEET INDEX

- 1 COVER SHEET
- 2 SITE CONTROL WITH AERIAL AND SHEET LAYOUT
- 3 - 5 ENLARGED PLAN VIEW
- 6 ACCESS ROAD PROFILE

**WVDEP OOG
ACCEPTED AS-BUILT**

9/8/2023

PROJECT # 21119-018
JULY 2023

DIEFFENBAUCH & HRITZ, LLC

AS-BUILT WELL ID	RADCLIFF WELL LOCATIONS							
	LATI (NAD83)	LONGI (NAD83)	NORTHING (NAD83)	EASTING (NAD83)	NORTHING (NAD83)	EASTING (NAD83)	NORTHING (NAD83) (UTM METERS)	EASTING (NAD83) (UTM METERS)
4H	39 58 09.00	80 43 09.07	39750.0927	17041.04 723	39752.133	17059.03 096	4382146.192	548278.890
8H	39 58 77.80	80 43 08.00	39760.1746	17041.51 051	39757.817	17059.06 902	4382152.649	548283.839
9H	39 58 77.94	80 43 02.190	39740.0568	17041.48 578	39752.458	17059.08 400	4382151.107	548281.828
12H	39 58 08.06	80 43 05.137	39756.7385	17041.65 926	39757.580	17059.03 867	4382161.564	548284.818
13H	39 58 08.09	80 43 05.210	39756.8254	17041.62 433	39757.862	17059.06 773	4382166.021	548285.807
14H	39 58 08.09	80 43 05.049	39756.8254	17041.58 900	39758.544	17059.17 708	4382170.479	548286.795
16H	39 58 09.83	80 43 08.044	39758.7843	17041.36 988	39760.126	17059.14 627	4382174.986	548287.783
18H	39 58 09.95	80 43 07.988	39758.8662	17041.33 715	39760.587	17059.11 554	4382179.384	548288.771
20H	39 58 09.97	80 43 08.883	39760.1882	17041.30 142	39760.589	17059.08 483	4382183.851	548289.764
21H	39 58 09.24	80 43 09.295	39753.7928	17041.83 802	39758.233	17060.22 146	4382183.190	548288.795
22H	39 58 09.00	80 43 09.041	39756.8272	17041.86 729	39759.263	17060.19 072	4382147.648	548287.784
3H	39 58 77.94	80 43 07.988	39758.7843	17041.77 807	39759.587	17060.15 999	4382152.251	548288.774
5H	39 58 77.71	80 43 07.730	39757.8366	17041.74 584	39758.279	17060.12 806	4382156.562	548289.763
7H	39 58 78.13	80 43 09.874	39760.1180	17041.71 512	39758.961	17060.09 853	4382161.020	548284.762
9H	39 58 78.51	80 43 09.029	39760.2058	17041.68 439	39758.647	17060.06 780	4382165.477	548285.741
11H	39 58 09.97	80 43 09.029	39760.1882	17041.65 589	39758.324	17060.03 707	4382169.933	548286.730
13H	39 58 09.89	80 43 07.730	39758.7843	17041.52 294	39759.898	17060.05 183	4382174.397	548287.720
15H	39 58 09.82	80 43 08.043	39758.7843	17041.59 221	39760.188	17060.07 940	4382178.864	548288.709
17H	39 58 09.84	80 43 09.867	39760.5082	17041.56 188	39760.870	17060.04 887	4382183.307	548289.698

DIEFFENBAUCH & HRITZ, LLC
1100 MARKET STREET, SUITE 200
MARION COUNTY, WV 26051
P. 304.266.5555 F. 304.266.1837

EQT PRODUCTION COMPANY

SITE AS-BUILT
RADCLIFF WELL SITE
MARION COUNTY, WV

COVER SHEET

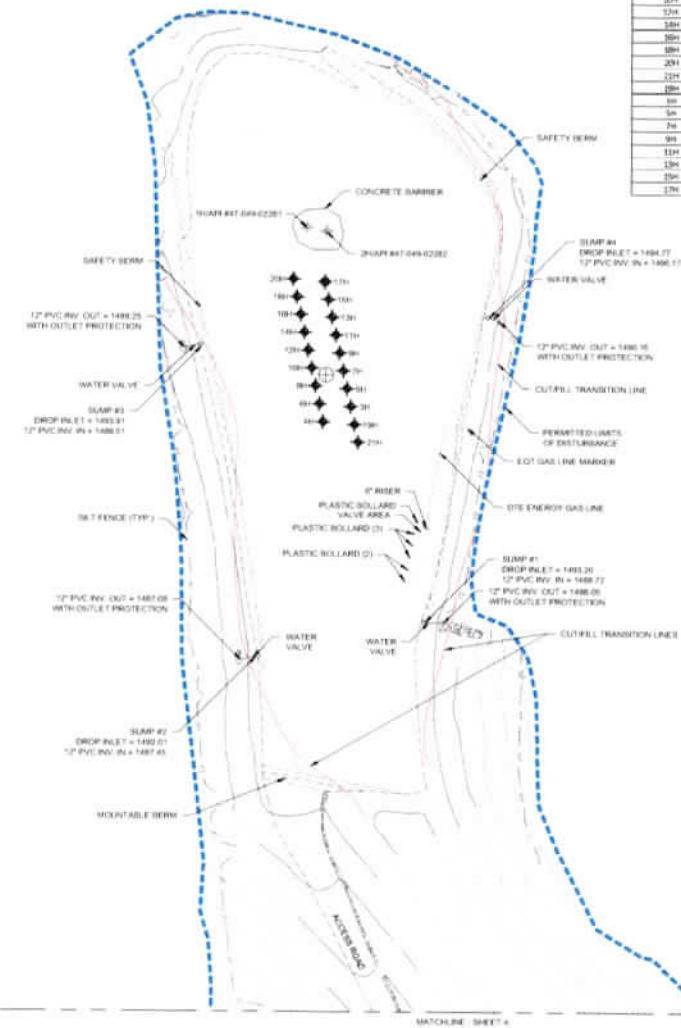
1

SCALE: 1" = 200' (AS-BUILT) DATE: 9/8/23 BY: JKH

**WVDEP OOG
ACCEPTED AS-BUILT**
JKH 9/8/2023

RADCLIFF WELL LOCATIONS

ASSIGNED WELL ID	EUTM164300E	EUTM4300N	NORTHING (METERS)	EASTING (METERS)	NORTHING (METERS)	EASTING (METERS)
80	39 5826980	80 43279676	39750 0002	170416 273	39750 1310	170420 004
81	39 5827780	80 43006201	39750 0766	170416 051	39750 0817	170418 991
82	39 5827784	80 43001960	39750 0766	170416 578	39750 408	170416 520
83A	39 5829396	80 43011131	39750 1785	170416 303	39750 180	170418 847
83B	39 5829398	80 43016151	39750 1785	170416 475	39750 180	170418 771
84A	39 5829396	80 43000396	39750 1785	170416 303	39750 341	170417 708
84B	39 5829398	80 43005444	39750 1785	170416 288	39750 226	170418 627
85A	39 5829396	80 43007688	39750 1785	170416 215	39750 307	170417 154
85B	39 5829397	80 43008833	39750 1785	170416 142	39750 389	170416 688
86A	39 5829394	80 43279696	39750 1785	170416 182	39750 231	170417 146
86B	39 5829396	80 43279641	39750 1785	170416 279	39750 303	170417 672
87	39 5827328	80 43279688	39750 1785	170417 667	39750 187	170416 188
88	39 5827331	80 43279730	39750 1785	170417 664	39750 279	170417 426
89	39 5829333	80 43279678	39750 1785	170417 512	39750 380	170418 852
90	39 5829333	80 43279703	39750 2284	170418 418	39750 442	170418 780
91A	39 5829337	80 43296164	39750 2824	170416 366	39750 524	170417 702
91B	39 5829339	80 43297308	39750 2824	170416 254	39750 636	170416 630
92A	39 5829342	80 43296853	39750 2824	170416 223	39750 688	170416 580
92B	39 5829344	80 43296907	39750 2824	170416 149	39750 739	170416 487



NOTES
 1.) SURVEY DATA REFERENCE TO NAVD83 NORTH ZONE
 HORIZONTAL: NAD 83 2011
 VERTICAL: NAVD 83
 2.) AS-BUILT PLAN BASED ON FIELD SURVEY BY
 DIEFFENBAUGH & HRTZ, LLC ON
 AUGUST 17, 2023

LEGEND

- LIMITS OF DISTURBANCE
- MAJOR CONTOUR
- MINOR CONTOUR
- ROADWAY
- GUARDRAIL
- EDGE OF WATER
- SK T FENCE
- DRIVE PLOW LINE
- CONTROL POINT
- △ 500 UNDERGROUND INVERT OUT WITH RRP RAP PROTECTION UNLESS OTHERWISE NOTED
- GAS TEST STATION
- EXISTING GAS WELL
- PROPOSED GAS WELL
- SAFETY BERM
- ASPHALT PAVING
- RRP RAP
- RADACCESS ROAD

FILE NO. 11000-100170-10-011
 DATE: 9/8/2023
 TIME: 11:15 AM
 SCALE: 1"=50'
 DRAWN BY: JKH
 CHECKED BY: [Blank]
 PROJECT: R-11000-100170-10-011
 SITE AS-BUILT RADCLIFF WELL SITE
 BARBOUR COUNTY, WV
 ENLARGED PLAN VIEW
5
 PROJECT: R-11000-100170-10-011
 DATE: 9/8/2023
 TIME: 11:15 AM
 SCALE: 1"=50'
 DRAWN BY: JKH
 CHECKED BY: [Blank]
 PROJECT: R-11000-100170-10-011
 DIEFFENBAUGH & HRTZ, LLC
 100 N. MARKET STREET
 MARTINSBURG, WV 26101
 P: 304.780.0000
 F: 304.780.0000

SITE AS-BUILT RADCLIFF WELL SITE MARION COUNTY, WEST VIRGINIA EQT PRODUCTION COMPANY

RECEIVED
OFFICE OF OIL AND GAS
AUG 9 2023
WV Department of Environmental Protection



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

LOCATION MAP



7-13-2023

Handwritten signature of Randall M. Kuehler
WV DEP

SHEET INDEX

- 1 COVER SHEET
- 2 SITE CONTROL WITH AERIAL AND SHEET LAYOUT
- 3-5 ENLARGED PLAN VIEW
- 6 ACCESS ROAD PROFILE

PROJECT # 21119-018
JULY 2023
DIEFFENBAUCH & HRITZ, LLC

WELL ID	LAT (NAD83)	LONG (NAD83)	RADCLIFF WELL LOCATIONS					
			NORTHING (NAD 83) (METERS)	EASTING (NAD 83) (METERS)	NORTHING (NAD 83) (FEET)	EASTING (NAD 83) (FEET)	NORTHING (NAD 83) (METERS)	EASTING (NAD 83) (METERS)
001	39.581780	80.437995	39726.4922	170154.773	39733.123	170294.066	4383.881.782	548204.810
002	39.581780	80.438022	39726.5376	170154.653	39733.212	170293.999	4383.882.699	548204.899
003	39.581778	80.438090	39726.5766	170154.578	39733.260	170293.932	4383.883.101	548204.814
004	39.581786	80.438110	39726.6204	170154.505	39733.300	170293.862	4383.883.568	548204.818
005	39.581780	80.438130	39726.6604	170154.433	39733.342	170293.793	4383.884.011	548204.817
006	39.581787	80.438150	39726.6974	170154.362	39733.384	170293.725	4383.884.479	548204.826
007	39.581793	80.438170	39726.7343	170154.290	39733.426	170293.657	4383.884.946	548204.835
008	39.581799	80.438190	39726.7712	170154.219	39733.468	170293.589	4383.885.414	548204.844
009	39.581807	80.438210	39726.8082	170154.147	39733.510	170293.521	4383.885.881	548204.853
010	39.581814	80.438230	39726.8451	170154.076	39733.552	170293.453	4383.886.349	548204.862
011	39.581822	80.438250	39726.8821	170154.004	39733.594	170293.385	4383.886.816	548204.871
012	39.581829	80.438270	39726.9191	170153.933	39733.636	170293.317	4383.887.284	548204.880
013	39.581837	80.438290	39726.9560	170153.861	39733.678	170293.249	4383.887.751	548204.889
014	39.581845	80.438310	39726.9930	170153.789	39733.720	170293.181	4383.888.219	548204.898
015	39.581853	80.438330	39727.0300	170153.717	39733.762	170293.113	4383.888.686	548204.907
016	39.581861	80.438350	39727.0670	170153.645	39733.804	170293.045	4383.889.154	548204.916
017	39.581869	80.438370	39727.1040	170153.573	39733.846	170292.977	4383.889.621	548204.925
018	39.581877	80.438390	39727.1410	170153.501	39733.888	170292.909	4383.889.089	548204.934
019	39.581885	80.438410	39727.1780	170153.429	39733.930	170292.841	4383.889.556	548204.943
020	39.581893	80.438430	39727.2150	170153.357	39733.972	170292.773	4383.889.024	548204.952
021	39.581901	80.438450	39727.2520	170153.285	39734.014	170292.705	4383.889.491	548204.961
022	39.581909	80.438470	39727.2890	170153.213	39734.056	170292.637	4383.889.959	548204.970
023	39.581917	80.438490	39727.3260	170153.141	39734.098	170292.569	4383.890.426	548204.979
024	39.581925	80.438510	39727.3630	170153.069	39734.140	170292.501	4383.890.894	548204.988
025	39.581933	80.438530	39727.3999	170152.997	39734.182	170292.433	4383.891.362	548204.997
026	39.581941	80.438550	39727.4369	170152.925	39734.224	170292.365	4383.891.829	548205.006
027	39.581949	80.438570	39727.4739	170152.853	39734.266	170292.297	4383.892.297	548205.015
028	39.581957	80.438590	39727.5109	170152.781	39734.308	170292.229	4383.892.764	548205.024
029	39.581965	80.438610	39727.5479	170152.709	39734.350	170292.161	4383.893.232	548205.033
030	39.581973	80.438630	39727.5849	170152.637	39734.392	170292.093	4383.893.699	548205.042
031	39.581981	80.438650	39727.6219	170152.565	39734.434	170292.025	4383.894.167	548205.051
032	39.581989	80.438670	39727.6589	170152.493	39734.476	170291.957	4383.894.634	548205.060
033	39.581997	80.438690	39727.6959	170152.421	39734.518	170291.889	4383.895.102	548205.069
034	39.582005	80.438710	39727.7329	170152.349	39734.560	170291.821	4383.895.569	548205.078
035	39.582013	80.438730	39727.7699	170152.277	39734.602	170291.753	4383.896.037	548205.087
036	39.582021	80.438750	39727.8069	170152.205	39734.644	170291.685	4383.896.504	548205.096
037	39.582029	80.438770	39727.8439	170152.133	39734.686	170291.617	4383.896.972	548205.105
038	39.582037	80.438790	39727.8809	170152.061	39734.728	170291.549	4383.897.439	548205.114
039	39.582045	80.438810	39727.9179	170151.989	39734.770	170291.481	4383.897.907	548205.123
040	39.582053	80.438830	39727.9549	170151.917	39734.812	170291.413	4383.898.374	548205.132
041	39.582061	80.438850	39727.9919	170151.845	39734.854	170291.345	4383.898.842	548205.141
042	39.582069	80.438870	39728.0289	170151.773	39734.896	170291.277	4383.899.309	548205.150
043	39.582077	80.438890	39728.0659	170151.701	39734.938	170291.209	4383.899.777	548205.159
044	39.582085	80.438910	39728.1029	170151.629	39734.980	170291.141	4383.899.244	548205.168
045	39.582093	80.438930	39728.1399	170151.557	39735.022	170291.073	4383.899.712	548205.177
046	39.582101	80.438950	39728.1769	170151.485	39735.064	170291.005	4383.899.179	548205.186
047	39.582109	80.438970	39728.2139	170151.413	39735.106	170290.937	4383.899.647	548205.195
048	39.582117	80.438990	39728.2509	170151.341	39735.148	170290.869	4383.899.114	548205.204
049	39.582125	80.439010	39728.2879	170151.269	39735.190	170290.801	4383.899.582	548205.213
050	39.582133	80.439030	39728.3249	170151.197	39735.232	170290.733	4383.899.049	548205.222
051	39.582141	80.439050	39728.3619	170151.125	39735.274	170290.665	4383.899.517	548205.231
052	39.582149	80.439070	39728.3989	170151.053	39735.316	170290.597	4383.899.984	548205.240
053	39.582157	80.439090	39728.4359	170150.981	39735.358	170290.529	4383.899.452	548205.249
054	39.582165	80.439110	39728.4729	170150.909	39735.400	170290.461	4383.899.919	548205.258
055	39.582173	80.439130	39728.5099	170150.837	39735.442	170290.393	4383.899.387	548205.267
056	39.582181	80.439150	39728.5469	170150.765	39735.484	170290.325	4383.899.854	548205.276
057	39.582189	80.439170	39728.5839	170150.693	39735.526	170290.257	4383.899.322	548205.285
058	39.582197	80.439190	39728.6209	170150.621	39735.568	170290.189	4383.899.789	548205.294
059	39.582205	80.439210	39728.6579	170150.549	39735.610	170290.121	4383.899.257	548205.303
060	39.582213	80.439230	39728.6949	170150.477	39735.652	170290.053	4383.899.724	548205.312
061	39.582221	80.439250	39728.7319	170150.405	39735.694	170290.000	4383.899.191	548205.321
062	39.582229	80.439270	39728.7689	170150.333	39735.736	170290.000	4383.899.658	548205.330
063	39.582237	80.439290	39728.8059	170150.261	39735.778	170290.000	4383.899.125	548205.339
064	39.582245	80.439310	39728.8429	170150.189	39735.820	170290.000	4383.899.592	548205.348
065	39.582253	80.439330	39728.8799	170150.117	39735.862	170290.000	4383.899.059	548205.357
066	39.582261	80.439350	39728.9169	170150.045	39735.904	170290.000	4383.899.526	548205.366
067	39.582269	80.439370	39728.9539	170150.000	39735.946	170290.000	4383.899.993	548205.375
068	39.582277	80.439390	39728.9909	170149.928	39735.988	170290.000	4383.899.460	548205.384
069	39.582285	80.439410	39729.0279	170149.856	39736.030	170290.000	4383.899.927	548205.393
070	39.582293	80.439430	39729.0649	170149.784	39736.072	170290.000	4383.899.394	548205.402
071	39.582301	80.439450	39729.1019	170149.712	39736.114	170290.000	4383.899.861	548205.411
072	39.582309	80.439470	39729.1389	170149.640	39736.156	170290.000	4383.899.328	548205.420

PROJECT: 21119-018
 SHEET: 1
 DATE: 7/13/2023
 CLIENT: EQT PRODUCTION COMPANY
 PROJECT: RADCLIFF WELL SITE
 COUNTY: MARION COUNTY, WV
 DRAFTER: R. PARSONS
 CHECKED: R. PARSONS
 DATE: 7/13/2023
 PROJECT: 21119-018
 SHEET: 1

OPERATOR: EQT Production Company WELL NO: 14H

PAD NAME: Radcliff

REVIEWED BY: John Zavatchan

SIGNATURE: 

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

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

RECEIVED
Office of Oil and Gas

AUG 09 2023

WV Department of
Environmental Protection

09/15/2023