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west virginia department of environmental protection

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

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

Monday, February 12, 2024  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY  
400 WOODCLIFF DR.

CANONSBURG, PA 15317

Re: Permit Modification Approval for RADCLIFF 16H  
47-049-02514-00-00

**Lateral Extension**

EQT PRODUCTION COMPANY

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

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

A blue ink signature of James A. Martin, written in a cursive style.

James A. Martin  
Chief

Operator's Well Number: RADCLIFF 16H  
Farm Name: Jackie D & Sheila L Radcliff  
U.S. WELL NUMBER: 47-049-02514-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 02/12/2024

Promoting a healthy environment.

02/16/2024

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: 16H 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' (built)

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_  
Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_  
Horizontal

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus, 7,916', 78', 2,593 psi

8) Proposed Total Vertical Depth: 7,916'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 19,035'

11) Proposed Horizontal Leg Length: 10,249'

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

13) Method to Determine Fresh Water Depths: Offset Wells - 049-02184, 049-00699, 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: \_\_\_\_\_

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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 Bars	85.6	40	40 /	50 ft <sup>3</sup> / CTS /
Fresh Water	13 3/8	New	J-55	54.5	1354	1354 /	1230 ft <sup>3</sup> / CTS
Coal							
Intermediate	9 5/8	New	J-55	36	2721	2721 /	1050 ft <sup>3</sup> / CTS
Production	6	New	P-110	24	19035	19035 /	500' above intermediate casing
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	0.312	1000	18	Class A/L /	1.04 - 1.20
Fresh Water	13 3/8	17 1/2	0.380	2730	2184	Class A/L	1.04 - 1.20
Coal							
Intermediate	9 5/8	12 3/8	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							

*Ky Willett /*  
*2/2/24*

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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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-Settling/Suspension Agent

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25) Proposed borehole conditioning procedures:

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

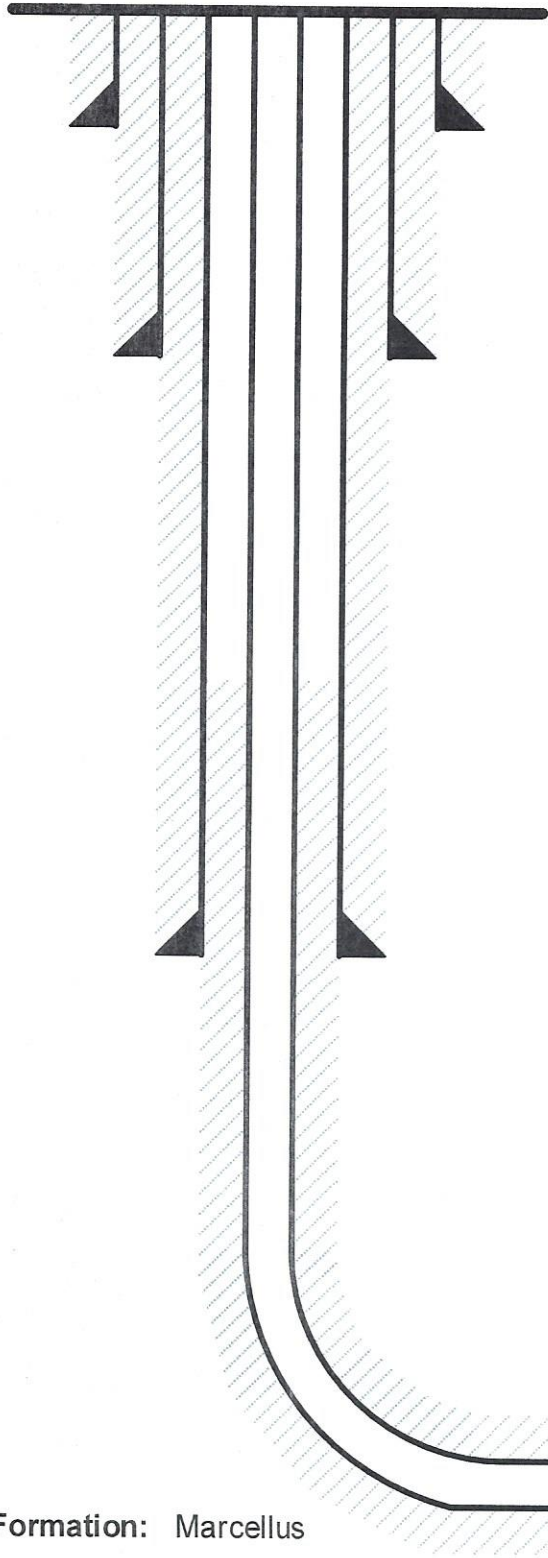
\*Note: Attach additional sheets as needed.

**EQT Production**

**Wellbore Diagram**

Well: Radcliff 16H  
Pad: Radcliff  
Elevation: 1493' GL 1506' KB

County: Marion  
State: West Virginia



**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

**Production @ 19,035' MD / 7,916' TVD /**

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

Formation: Marcellus

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02/16/2024 SALE

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

February 2, 2024

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## Purpose

The purpose of this pad-specific Hydraulic Fracturing Monitoring Plan is to identify and notify conventional well operators near EQT hydraulic fracturing in Marion County, WV prior to hydraulic fracturing at the following EQT wells on the 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

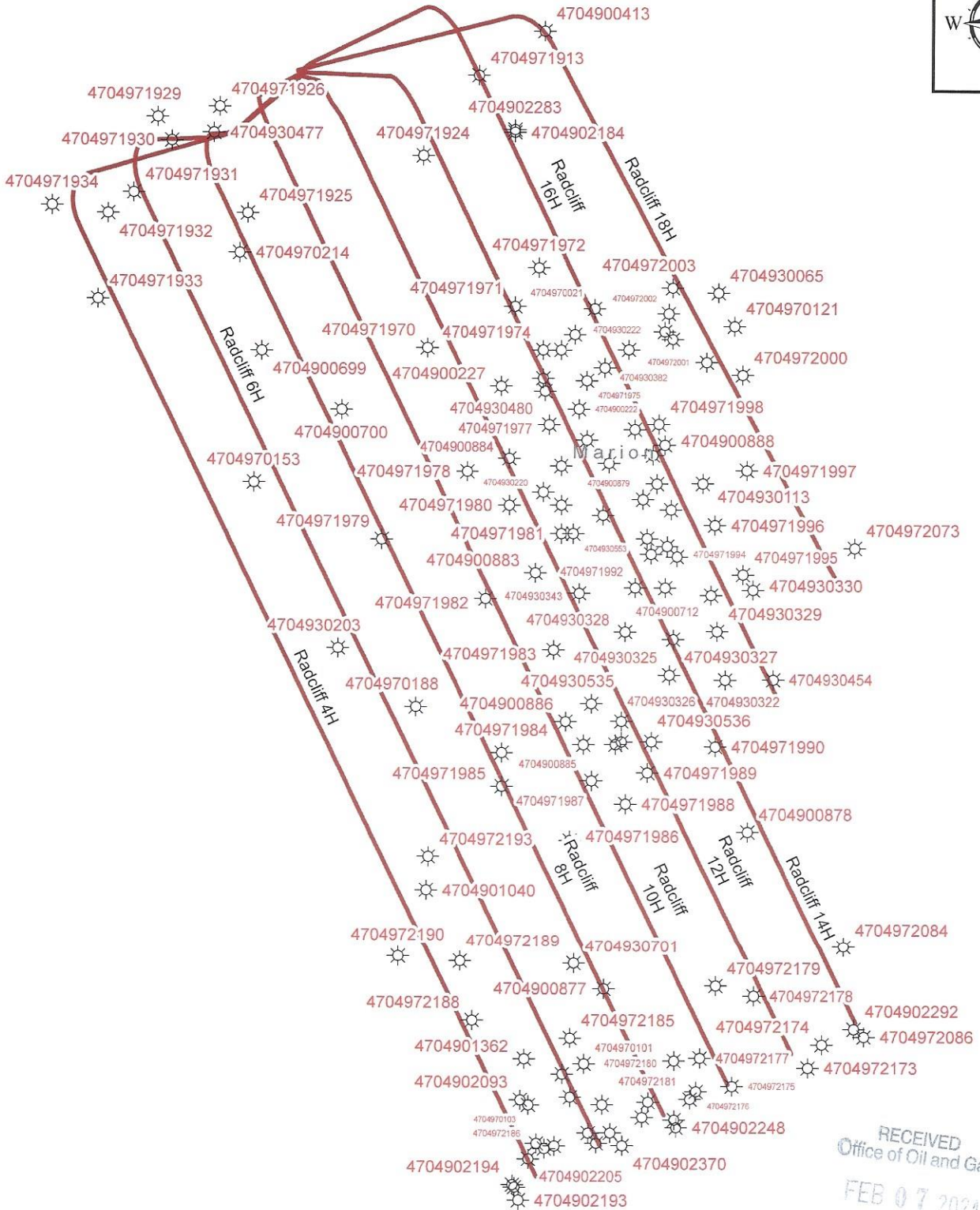
### 2. Reporting

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.

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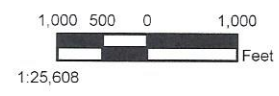
**EQT**  
EQT Corporation  
625 Liberty Avenue  
Pittsburgh, PA 15222

**Radcliff South**

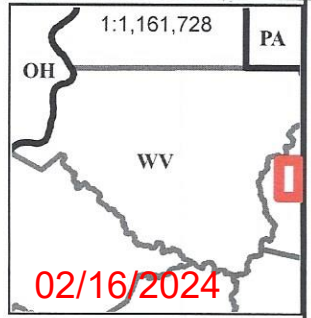
**Vertical Offsets and  
Foreign Laterals  
within 500 Feet**

**Legend**

- Well Lateral\_FM
- Formation
  - Geneseo
  - Marcellus
  - Utica
- Radcliff\_Offset\_Wells
- Radcliff\_Permits



**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.





API_LUWL_Un	API_LUWL_12	ENVOperator	ENWWellSta	ENWWellTyp	InitialOpe	Latitude	Longitude	ElevationG	ElevationK	MD_FT	TVD_FT	WellName	WellSymbol
4704900888	47-049-00888-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.573547	-80.41966	1153	1163	3041	3041	KENDALL, ALFRED - HEIRS 3	OTHER-P & A
4704971929	47-049-71929-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.586186	-80.44514	1336	0	0	0	L D FETTY	UNREPORTED-UNREPORTED
4704972001	47-049-72001-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.576741	-80.4176	1289	0	0	0	ALF KENDALL	UNREPORTED-UNREPORTED
4704971987	47-049-71987-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.560485	-80.42341	1381	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704901362	47-049-01362-00	CONSOLIDATION COAL COMPANY	P & A	OIL	CONSOLIDATION COAL COMPANY	39.549745	-80.42678	1098	1108	2823	2823	SNODGRASS, TOMMY L. 5282	OIL-P & A
4704900879	47-049-00879-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.572821	-80.42247	1336	1346	3048	3048	HAYES, J. L. - HEIRS 24	OTHER-P & A
4704971994	47-049-71994-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.569193	-80.4191	1097	0	0	0	Z E BATSON	UNREPORTED-UNREPORTED
4704900227	47-049-00227-00	DIVERSIFIED ENERGY	P & A	WATER	DIVERSIFIED PRODUCTION	39.575767	-80.42792	1224	1233	3077	3077	HAYES, SARAH E. 4	WATER-P & A
4704900712	47-049-00712-00	DIVERSIFIED ENERGY	P & A	OIL	DIVERSIFIED PRODUCTION	39.567741	-80.41741	1090	1099	2858	2858	BATSON, Z. E. & A. M. 7	OIL-P & A
4704900877	47-049-00877-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.552357	-80.42284	1274	1284	2998	2998	HAYES, J. L. & A. J. 19	OTHER-P & A
4704972002	47-049-72002-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.578627	-80.41947	1469	0	0	0	J W BATSON	UNREPORTED-UNREPORTED
4704971998	47-049-71998-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.574273	-80.42003	1144	0	0	0	ALF KENDALL	UNREPORTED-UNREPORTED
4704972181	47-049-72181-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.548003	-80.4206	1074	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704900876	47-049-00876-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.548246	-80.4245	1274	1283	2985	2985	MICHAEL, JEFFREY 5259	OTHER-P & A
4704900222	47-049-00222-00	DIVERSIFIED ENERGY	P & A	GAS	DIVERSIFIED PRODUCTION	39.574854	-80.42397	1416	1425	3146	3146	HAYES, J. L. - HEIRS 42	GAS-P & A
4704900869	47-049-00869-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.57137	-80.42078	1257	1267	3006	3006	BATSON, Z. E. & A. M. 1	OTHER-P & A
4704930220	47-049-30220-00	DELMAR CO	INACTIVE COMPLETED	OIL & GAS	DELMAR	39.571671	-80.42584	1105	0	0	0	27	OIL & GAS-INACTIVE COMPLETED
4704930277	47-049-30277-00	MONROE, R. S.	UNREPORTED	UNREPORTED	MONROE, R. S.	39.54905	-80.4249	1281	0	0	0	A W KENDALL	UNREPORTED-UNREPORTED
4704972189	47-049-72189-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.553519	-80.42996	1043	0	0	0	J N MICHAEL	UNREPORTED-UNREPORTED
4704930701	47-049-30701-00	HANLEY, BEATY & BEATY	INACTIVE COMPLETED	GAS	HANLEY, BEATY & BEATY	39.5534	-80.42434	1255	0	0	3124	NEWTON CUNNINGHAM 1	GAS-INACTIVE COMPLETED
4704971974	47-049-71974-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.577176	-80.42584	1433	0	0	0	SARAH HAYS	UNREPORTED-UNREPORTED
4704930536	47-049-30536-00	TRI-STATE PIPE COMPANY, THE	COMPLETED	OIL	TRI-STATE PIPE COMPANY, THE	39.561955	-80.42041	1326	0	0	3079	AMELIA CROUSER 2	OIL-COMPLETED
4704930553	47-049-30553-00	HANLEY, BEATY, MCISAAC	UNREPORTED	WATER	HANLEY, BEATY, MCISAAC	39.570076	-80.42434	1270	0	2925	0	S C THORN HEIRS	WATER-UNREPORTED
4704930328	47-049-30328-00	(S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.566306	-80.42172	1311	0	0	3095	M M KENDALL 7	OIL-INACTIVE COMPLETED
4704970121	47-049-70121-00	(N/A)	COMPLETED	OIL	(N/A)	39.578051	-80.41622	1495	0	0	3210	2	OIL-COMPLETED
4704972176	47-049-72176-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.548439	-80.41816	1229	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704930114	47-049-30114-00	CLIFTON OIL & GAS	COMPLETED	OIL	CLIFTON OIL & GAS	39.574136	-80.42116	1223	0	0	3113	5	OIL-COMPLETED
4704902292	47-049-02292-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.550788	-80.41032	1323	1332	0	0	STRAIGHT, W.S. & JAS W. 5124	OTHER-P & A
4704930065	47-049-30065-00	HARRY SIBERT CONTRACT	COMPLETED	OIL	HARRY SIBERT CONTRACT	39.579356	-80.41704	1294	0	0	3097	ALFRED KENDALL 7	OIL-COMPLETED
4704930322	47-049-30322-00	(S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.56442	-80.41666	1210	0	0	2327	M M KENDALL 2	OIL-INACTIVE COMPLETED
4704971931	47-049-71931-00	BP	UNREPORTED	UNREPORTED	BP	39.583272	-80.44626	1204	0	0	0	JACOB MURRAY	UNREPORTED-UNREPORTED
4704972193	47-049-72193-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.557593	-80.43165	1083	0	0	0	REBECCA WATSON	UNREPORTED-UNREPORTED
4704972186	47-049-72186-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.546407	-80.42622	1022	0	0	0	JOHN BOARD	UNREPORTED-UNREPORTED
4704901915	47-049-01915-00	DIVERSIFIED ENERGY	PRODUCING	OIL & GAS	DIVERSIFIED PRODUCTION	39.571045	-80.41942	1112	1121	4110	4110	D HAYES 50	OIL & GAS-PRODUCING
4704930221	47-049-30221-00	(S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL & GAS	SOUTH PENN OIL (S PENN NAT GAS)	39.577616	-80.41928	1450	0	2498	0	HOARD BATSON 1	OIL & GAS-INACTIVE COMPLETED
4704972180	47-049-72180-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.5496	-80.41929	1087	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704930454	47-049-30454-00	INTERSTATE PIPE & SUPPLY	UNREPORTED	WATER	INTERSTATE PIPE & SUPPLY	39.564419	-80.41426	1093	0	3008	0	M M KENDALL	WATER-UNREPORTED
4704971972	47-049-71972-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.580369	-80.42603	1488	0	0	0	D METZ	UNREPORTED-UNREPORTED
4704971986	47-049-71986-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.559163	-80.42453	1288	0	0	0	NANCY E HAYS	UNREPORTED-UNREPORTED
4704900885	47-049-00885-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.561936	-80.42378	1236	1246	3026	3026	HAYES, J. L. - HEIRS 34	OTHER-P & A
4704900886	47-049-00886-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.562807	-80.42472	1269	1279	3040	3040	HAYES, J. L. - HEIRS 36	OTHER-P & A
47049302370	47-049-02370-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.546269	-80.42192	1050	1059	0	0	HAYS, J.L. & A.J. 7701	OTHER-P & A
4704971971	47-049-71971-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.576917	-80.42715	1448	0	0	0	SARAH HAYS	UNREPORTED-UNREPORTED
4704971926	47-049-71926-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.586622	-80.44195	1116	0	0	0	L D FETTY	UNREPORTED-UNREPORTED

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4704930327	47-049-30327-00	SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.566016	-80.41928	1233	0	0	2899		M M KENDALL 6	OIL-INACTIVE COMPLETED
4704930329	47-049-30329-00	SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.566319	-80.41714	1150	0	0	2271		M M KENDALL 8	OIL-INACTIVE COMPLETED
4704971985	47-049-71985-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.568467	-80.41583	1254	0	0	0		W Z HAYS	UNREPORTED-UNREPORTED
4704972179	47-049-72179-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.552502	-80.41722	1224	0	0	0		NOAH BAKER	UNREPORTED-UNREPORTED
4704970188	47-049-70188-00	(N/A)	UNREPORTED	UNREPORTED	SOUTH PENN OIL (S PENN NAT GAS)	39.563406	-80.43221	1131	0	0	0		GEORGE WATSON	UNREPORTED-UNREPORTED
4704971985	47-049-71985-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.56034	-80.4279	1190	0	0	0		J L HAYS	UNREPORTED-UNREPORTED
4704971991	47-049-71991-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.56202	-80.4219	1371	0	0	0		ZACK KENDATT 2	UNREPORTED-UNREPORTED
4704901040	47-049-01040-00	NOUMENON CORPORATION	INACTIVE PRODUCER	GAS	NOUMENON	39.556276	-80.43165	1120	1130	0	0		MICHAEL 1	GAS-INACTIVE PRODUCER
4704970021	47-049-70021-00	(N/A)	UNREPORTED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.578776	-80.42322	1295	0	0	2523		1	OIL-UNREPORTED
4704971993	47-049-71993-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.569338	-80.42041	1115	0	0	0		Z E BATSON	UNREPORTED-UNREPORTED
4704930222	47-049-30222-00	(N/A)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.577181	-80.42153	1203	0	0	2356		HOARD-BATSON 4	OIL-INACTIVE COMPLETED
4704971930	47-049-71930-00	(N/A)	UNREPORTED	OIL	CENTURY OIL	39.585316	-80.44439	1333	0	0	0		JACOB MURRAY	UNREPORTED-UNREPORTED
4704930477	47-049-30477-00	CENTURY OIL. INC.	UNREPORTED	OIL	CENTURY OIL	39.585641	-80.44234	1174	0	2997	2142		NANCY MURRAY	OIL-UNREPORTED
4704972182	47-049-72182-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.546842	-80.42359	1243	0	0	0		JACK HAYS	UNREPORTED-UNREPORTED
4704972178	47-049-72178-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.552067	-80.41527	1165	0	0	0		NOAH BAKER	UNREPORTED-UNREPORTED
4704970021	47-049-70021-00	(N/A)	UNREPORTED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.578776	-80.42322	1295	0	0	2523		1	OIL-UNREPORTED
4704972187	47-049-72187-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.546261	-80.42528	1100	0	0	0		JACK HAYS	UNREPORTED-UNREPORTED
4704902068	47-049-02068-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.566626	-80.41983	1117	1126	0	0		CONSOLIDATION COAL CO 5045	OTHER-P & A
4704902028	47-049-02028-00	DIVERSIFIED ENERGY	P & A	WATER	DIVERSIFIED PRODUCTION	39.576055	-80.42576	1348	1357	3291	3291		HOARD/BATSON 6	WATER-P & A
4704971925	47-049-71925-00	BP	UNREPORTED	UNREPORTED	BP	39.582546	-80.44064	1149	0	0	0		JACOB MURRAY	UNREPORTED-UNREPORTED
4704907000	47-049-00700-00	CONSOL	UNREPORTED	OTHER	CONSOL GAS COMPANY	39.574861	-80.43589	1276	1286	0	0		AMOS, JOHN D. 3-90-S	OTHER-UNREPORTED
4704971983	47-049-71983-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.565564	-80.42528	1421	0	0	0		BURCHINAL HRS	UNREPORTED-UNREPORTED
4704971973	47-049-71973-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.577756	-80.42416	1368	0	0	0		J W BATSON	UNREPORTED-UNREPORTED
4704971975	47-049-71975-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.576015	-80.42359	1392	0	0	0		J W BATSON	UNREPORTED-UNREPORTED
4704900699	47-049-00699-00	DIVERSIFIED ENERGY	PRODUCING	OIL & GAS	DIVERSIFIED PRODUCTION	39.57724	-80.43987	1061	1070	5652	5652		AMOS, J. D. 2	OIL & GAS-PRODUCING
4704972003	47-049-72003-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.579643	-80.41928	1411	0	0	0		J W BATSON	UNREPORTED-UNREPORTED
4704902193	47-049-02193-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.544169	-80.42711	1024	1034	0	0		MICHAEL, JEFFERY H. 5429	OTHER-P & A
4704900883	47-049-00883-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.566812	-80.42622	1329	1339	3125	3125		HAYES, J. L. & G. HAYES 31	OTHER-P & A
4704970103	47-049-70103-00	DELMAR OIL CO	COMPLETED	DRY HOLE	DELMAR	39.547858	-80.42659	1071	0	2828	0		HAYES, A J 15	DRY HOLE-COMPLETED
4704972184	47-049-72184-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.547278	-80.41929	1166	0	0	0		JACK HAYS	UNREPORTED-UNREPORTED
4704970017	47-049-70017-00	(N/A)	UNREPORTED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.577906	-80.41966	1444	0	2675	0		JOHN BAKER	OIL-UNREPORTED
4704902205	47-049-02205-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.545832	-80.4286	1008	1017	0	0		SNODGRASS, TOMMY L. 5256	OTHER-P & A
4704902233	47-049-02233-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.547426	-80.4209	1088	1077	0	0		MICHAEL, JEFFREY 5254	OTHER-P & A
4704971979	47-049-71979-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.569919	-80.4339	1367	0	0	0		ARAH CAMPBELL	UNREPORTED-UNREPORTED
4704972190	47-049-72190-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.553663	-80.43315	1039	0	0	0		J N MICHAEL	UNREPORTED-UNREPORTED
4704970153	47-049-70153-00	(N/A)	UNREPORTED	UNREPORTED	SOUTH PENN OIL (S PENN NAT GAS)	39.572106	-80.44027	1064	0	0	0		1	UNREPORTED-UNREPORTED
4704900413	47-049-000413-00	DIVERSIFIED ENERGY	P & A	OTHER	DIVERSIFIED PRODUCTION	39.589474	-80.42574	1218	1228	0	0		BAKER, J. R. 271	OTHER-P & A
4704970035	47-049-70035-00	FREEHOLD OIL & GAS	UNREPORTED	GAS	FREEHOLD OIL & GAS	39.544669	-80.42734	1015	0	2978	0		B B BOARD	GAS-UNREPORTED
4704971981	47-049-71981-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.570064	-80.42491	1333	0	0	0		WILLIAM HAYS HRS	UNREPORTED-UNREPORTED
4704930480	47-049-30480-00	BRITTON & BURGE	UNREPORTED	OIL	BRITTON & BURGE	39.575566	-80.42566	1350	0	3108	3050		SARAH E HAYS	OIL-UNREPORTED
4704972188	47-049-72188-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.551196	-80.4294	1197	0	0	0		J N MICHAEL	UNREPORTED-UNREPORTED
4704971984	47-049-71984-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.561646	-80.4279	1304	0	0	0		J L HAYS	UNREPORTED-UNREPORTED
4704930326	47-049-30326-00	SOUTH PENN OIL (S. PENN NAT. GAS)	INACTIVE COMPLETED	OIL	SOUTH PENN OIL (S PENN NAT GAS)	39.562825	-80.42191	1312	0	0	3066		M M KENDALL 5	OIL-INACTIVE COMPLETED
4704971970	47-049-71970-00	BP	UNREPORTED	UNREPORTED	BP	39.577321	-80.43165	1331	0	0	0		JACOB L MURRAY	UNREPORTED-UNREPORTED
4704971982	47-049-71982-00	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.567597	-80.42865	1347	0	0	0		REBECCA WATSON	UNREPORTED-UNREPORTED

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4704971980	47-049-71980-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,571,225	-80,427,53	1210	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704900871	47-049-00871-00	DIVERSIFIED ENERGY	P & A	DIVERSIFIED PRODUCTION	OTHER	39,568,032	-80,419,666	1209	1219	3184	3184	BATSON, Z. E. & A. M. 4	OTHER-P & A
4704930113	47-049-30113-00	HOPE CONSTRUCTION & REFINING	UNREPORTED	HOPE CONSTRUCTION & REFINING	WATER	39,571,961	-80,417,779	1236	0	3015	3009	W Z HAYS HEIRS	WATER-UNREPORTED
4704972086	47-049-72086-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,550,47	-80,409,84	1338	0	0	0	J W STRAIGHT	UNREPORTED-UNREPORTED
4704900880	47-049-00880-00	DIVERSIFIED ENERGY	P & A	DIVERSIFIED PRODUCTION	OTHER	39,575,693	-80,423,59	1370	1380	3167	3167	HAYES, J. L. - HEIRS 26	OTHER-P & A
4704972000	47-049-72000-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,576,16	-80,415,83	1267	0	0	0	ALF KENDALL	UNREPORTED-UNREPORTED
4704971978	47-049-71978-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,572,532	-80,429,59	1277	0	0	0	J L HAYS	UNREPORTED-UNREPORTED
4704902383	47-049-02383-00	CONSOLIDATION COAL COMPANY	P & A	CONSOLIDATION COAL COMPANY	OTHER	39,546,162	-80,425,76	1044	1053	0	0	MICHAEL, JEFFREY H. 5255	OTHER-P & A
4704900881	47-049-00881-00	DIVERSIFIED ENERGY ROSS AND WHARTON GAS	P & A	DIVERSIFIED PRODUCTION	OTHER	39,571,226	-80,424,9	1178	1188	3130	3130	HAYES, J. L. - HEIRS 28	OTHER-P & A
4704901430	47-049-01430-00	COMPANY, INC.	P & A	ROSS&WHARTON GAS CO	OTHER	39,568,031	-80,421,16	1339	1349	0	0	Z.E. BATSON 6	OTHER-P & A
4704972175	47-049-72175-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,548,584	-80,416,4	1220	0	0	0	J J HOLDEN	UNREPORTED-UNREPORTED
4704972084	47-049-72084-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,553,954	-80,410,78	1225	0	0	0	J W STRAIGHT	UNREPORTED-UNREPORTED
4704902232	47-049-02232-00	CONSOLIDATION COAL COMPANY	P & A	CONSOLIDATION COAL COMPANY	OTHER	39,547,931	-80,422,88	1278	1287	0	0	MICHAEL, JEFFREY 5258	OTHER-P & A
4704971933	47-049-71933-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,579,208	-80,448,13	1489	0	0	0	NIMROD COLE	UNREPORTED-UNREPORTED
4704971988	47-049-71988-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,559,614	-80,421,72	1428	0	0	0	BURCHINAL HRS	UNREPORTED-UNREPORTED
4704971997	47-049-71997-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,572,531	-80,415,65	1409	0	0	0	W Z HAYS	UNREPORTED-UNREPORTED
4704971990	47-049-71990-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,561,791	-80,417,22	1140	0	0	0	J F CROUSER ET AL	UNREPORTED-UNREPORTED
4704971924	47-049-71924-00	BP	UNREPORTED	BP	UNREPORTED	39,584,735	-80,431,84	1102	0	0	0	JACOB MURRAY	UNREPORTED-UNREPORTED
4704972185	47-049-72185-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,550,471	-80,424,53	1284	0	0	0	BENJAMIN GRUBB	UNREPORTED-UNREPORTED
4704930203	47-049-30203-00	L A DILLINGER SOUTH PENN OIL (S PENN NAT.	UNREPORTED	L A DILLINGER	UNREPORTED	39,565,726	-80,436,15	1407	0	0	0	SARAH E HAYS	UNREPORTED-UNREPORTED
4704930323	47-049-30323-00	GAS)	INACTIVE COMPLETED	SOUTH PENN OIL (S PENN NAT.	UNREPORTED	39,561,872	-80,422,21	1329	0	0	0	BURCHINAL HEIRS 2	OIL-INACTIVE COMPLETED
4704930343	47-049-30343-00	JENNINGS BROTHERS, E. H., COMPANY	INACTIVE COMPLETED	JENNINGS BROTHERS, E. H., COMPANY	GAS	39,567,756	-80,423,97	1298	0	0	0	29	GAS-INACTIVE COMPLETED
4704902093	47-049-02093-00	CONSOLIDATION COAL COMPANY	P & A	CONSOLIDATION COAL COMPANY	DRY HOLE	39,548,109	-80,426,99	1075	1085	2826	2826	MICHAEL JEFFREY H. 5257	DRY HOLE P & A
4704930330	47-049-30330-00	GAS)	INACTIVE COMPLETED	SOUTH PENN OIL (S PENN NAT.	OIL	39,567,901	-80,415,28	1152	0	0	0	M M KENDALL 9	OIL-INACTIVE COMPLETED
4704900878	47-049-00878-00	DIVERSIFIED ENERGY	PRODUCING	DIVERSIFIED ENERGY	GAS	39,558,453	-80,415,65	1410	1420	3342	3342	HAYES, J. L. & A. J. 20	GAS-PRODUCING
4704971913	47-049-71913-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,587,783	-80,429,03	1267	0	0	0	S C BATSON	UNREPORTED-UNREPORTED
4704971932	47-049-71932-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,582,546	-80,447,57	1376	0	0	0	NIMROD COLE	UNREPORTED-UNREPORTED
4704902194	47-049-02194-00	CONSOLIDATION COAL COMPANY	P & A	CONSOLIDATION COAL COMPANY	OTHER	39,544,802	-80,427,38	1014	1023	0	0	SNODGRASS, DIANE 5320	OTHER-P & A
4704902271	47-049-02271-00	CONSOLIDATION COAL COMPANY	P & A	CONSOLIDATION COAL COMPANY	OTHER	39,548,072	-80,418,46	1233	1242	0	0	HAYS, J. L. & A. J., #2 5141	OTHER-P & A
4704972173	47-049-72173-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,549,309	-80,412,65	1381	0	0	0	J J HOLDEN	UNREPORTED-UNREPORTED
4704972073	47-049-72073-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,569,484	-80,410,21	1286	0	0	0	HENRY STRAIGHT 3	UNREPORTED-UNREPORTED
4704902248	47-049-02248-00	CONSOLIDATION COAL COMPANY	P & A	CONSOLIDATION COAL COMPANY	OTHER	39,546,967	-80,419,18	1225	1234	0	0	MICHAEL, JEFFREY 5139	OTHER-P & A
4704930555	47-049-30555-00	TRI-STATE PIPE COMPANY, THE	COMPLETED	TRI-STATE PIPE COMPANY, THE	OIL	39,563,472	-80,423,44	1360	0	0	0	KENDALL-BURCHINAL 1	OIL-COMPLETED
4704972174	47-049-72174-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,550,181	-80,411,19	1349	0	0	0	NOAH BAKER	UNREPORTED-UNREPORTED
4704971992	47-049-71992-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,568,033	-80,421,16	1286	0	0	0	Z E BATSON 6	UNREPORTED-UNREPORTED
4704900870	47-049-00870-00	DIVERSIFIED ENERGY	P & A	DIVERSIFIED PRODUCTION	OTHER	39,570,79	-80,422,84	1120	1130	2906	2906	BATSON, Z. E. & A. M. 5	OTHER-P & A
4704971934	47-049-71934-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,582,837	-80,450,38	1401	0	0	0	NIMROD COLE	UNREPORTED-UNREPORTED
4704900218	47-049-00218-00	DIVERSIFIED ENERGY	P & A	DIVERSIFIED PRODUCTION	GAS	39,572,03	-80,420,13	1170	1179	3022	3022	KENDALL, ALFRED 12	GAS-P & A
4704930376	47-049-30376-00	GAS)	INACTIVE COMPLETED	SOUTH PENN OIL (S PENN NAT.	OIL & GAS	39,571,181	-80,424,91	1435	0	0	0	J W BATSON 5	OIL & GAS-INACTIVE COMPLETED
4704972177	47-049-72177-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,549,745	-80,417,97	1128	0	0	0	J J HOLDEN	UNREPORTED-UNREPORTED
4704930325	47-049-30325-00	GAS)	INACTIVE COMPLETED	SOUTH PENN OIL (S PENN NAT.	OIL	39,572,967	-80,427,53	1184	1194	3041	3041	M M KENDALL 3	OIL-INACTIVE COMPLETED
4704900884	47-049-00884-00	DIVERSIFIED ENERGY	P & A	DIVERSIFIED PRODUCTION	OTHER	39,570,355	-80,417,22	1181	1194	0	0	HAYES, J. L. / G. HAYES 33	OTHER-P & A
4704971996	47-049-71996-00	(N/A)	UNREPORTED	(N/A)	UNREPORTED	39,572,877	-80,424,9	1194	1204	3003	3003	W Z HAYS	UNREPORTED-UNREPORTED
4704900882	47-049-00882-00	DIVERSIFIED ENERGY	P & A	DIVERSIFIED PRODUCTION	OTHER	39,580,952	-80,441,02	1076	0	0	0	HAYES, J. L. / G. HAYES 30	OTHER-P & A
4704970214	47-049-70214-00	BP	UNREPORTED	BP	UNREPORTED							NANCY L MURRAY	UNREPORTED-UNREPORTED





APL_UWIL_Un	ENVOperato	ENVWellSta	Latitude	Longitude	PermitNumb	PermitStat	PermitTyp	WellName	WellType							
4704972183	47-049-72183-00 (N/A)	SOUTH PENN OIL (S. PENN NAT.	UNREPORTED	UNREPORTED	(N/A)	39.546842	-80.42247	1155	0	0	0	0	0	0	JACK HAYS	UNREPORTED-UNREPORTED
4704930382	47-049-30382-00 (GAS)	SOUTH PENN OIL (S PENN NAT GAS)	INACTIVE COMPLETED	OIL	(N/A)	39.576456	-80.42286	1215	0	0	3006	0	0	0	HOARD-BATSON 12	OIL-INACTIVE COMPLETED
4704971989	47-049-71989-00 (N/A)	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.580776	-80.4206	1394	0	0	0	0	0	0	J L CROUSER ET AL	UNREPORTED-UNREPORTED
4704902360	47-049-02360-00	CONSOLIDATION COAL COMPANY	P & A	OTHER	CONSOLIDATION COAL COMPANY	39.546374	-80.42322	1198	1207	0	0	0	0	0	HAYS, J.L. & A.J. 5252	OTHER-P & A
4704900229	47-049-00229-00	COBHAM GAS INDUSTRIES, INC.	P & A	GAS	TRANS ENERGY	39.573135	-80.42034	1142	1151	3400	3400	3400	3400	3400	KENDALL 13	GAS-P & A
4704900215	47-049-00215-00	DIVERSIFIED ENERGY	P & A	WATER	DIVERSIFIED PRODUCTION	39.569819	-80.4206	1109	1118	2936	2936	2936	2936	2936	BATSON, ZEBEDEE 8	WATER-P & A
4704970101	47-049-70101-00	DELMAR OIL CO	UNREPORTED	OIL	DELMAR	39.549485	-80.42378	1326	0	3037	0	3037	0	0	A J HAYES	OIL-UNREPORTED
4704971977	47-049-71977-00 (N/A)	(N/A)	UNREPORTED	UNREPORTED	(N/A)	39.574273	-80.42547	1346	0	0	0	0	0	0	SARAH HAYS	UNREPORTED-UNREPORTED

Permits

APL_UWIL_Un	ENVOperato	ENVWellSta	Latitude	Longitude	PermitNumb	PermitStat	PermitTyp	WellName	WellType
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4704902184	WEST VIRGINIA LAND RESOURCES, INC.	P & A	39.585619	-80.427226	4704902184 2023-10-30	ACTIVE	PILLIG BACK	JONES 2H GAS	GAS
4704902283	WEST VIRGINIA LAND RESOURCES, INC.	P & A	39.58575	-80.42716	4704902283 2023-10-30	ACTIVE	PILLIG BACK	JONES 3H GAS	GAS

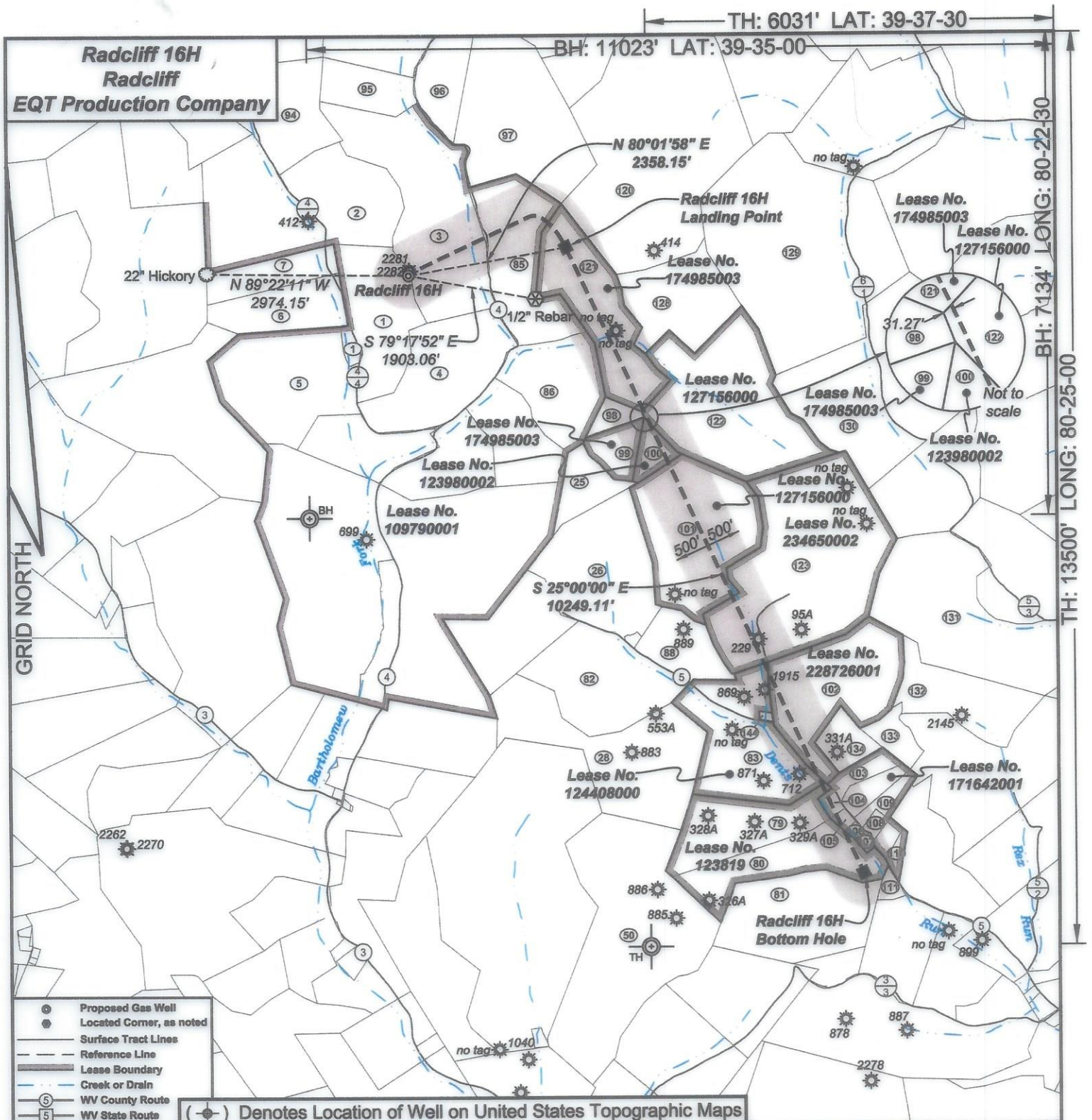
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WV Department of  
Environmental Protection

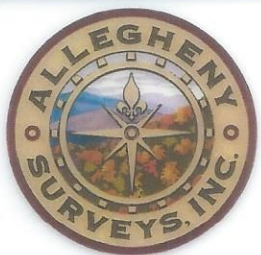
02/16/2024





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

() Denotes Location of Well on United States Topographic Maps



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

*Ben R. Singleton*  
P.S. 2092



SEAL

FILE NO: 113-21  
DRAWING NO: Radcliff 16H  
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: January 30 20 24  
OPERATOR'S WELL NO.: Radcliff 16H  
API WELL NO  
47 - 049 - 02514  
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: 1092  
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

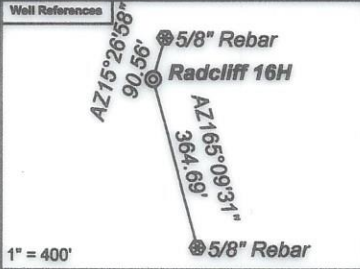
02/16/2024



**Radcliff 16H**  
**Radcliff**  
**EQT Production Company**

Tract I.D.	Tax Map No.	Parcel No.	County	District
1	40	10.1	Marion	Mannington
2	40	10	Marion	Mannington
3	40	3	Marion	Mannington
4	40	2	Marion	Mannington
5	40	11	Marion	Mannington
6	40	12	Marion	Mannington
7	40	13	Marion	Mannington
25	39	3	Marion	Mannington
26	39	5	Marion	Mannington
28	38	21	Marion	Mannington
50	38	11	Marion	Mannington
79	38	19	Marion	Mannington
80	38	19.4	Marion	Mannington
81	38	15	Marion	Mannington
82	38	21.2	Marion	Mannington
83	38	20	Marion	Mannington
85	26	16	Marion	Mannington
86	39	2	Marion	Mannington
88	38	21.1	Marion	Mannington
94	40	9	Marion	Mannington
95	40	4	Marion	Mannington
96	NA	NA	Marion	Mannington
97	26	15	Marion	Mannington
98	39	15	Marion	Mannington
99	26	17	Marion	Mannington
100	39	16	Marion	Mannington
101	39	7	Marion	Mannington
102	39	9	Marion	Mannington
103	39	11.2	Marion	Mannington
104	38	19.2	Marion	Mannington
105	38	19.5	Marion	Mannington
106	38	19.3	Marion	Mannington
107	38	19.1	Marion	Mannington
108	39	11.1	Marion	Mannington
109	39	11.3	Marion	Mannington
110	39	11.4	Marion	Mannington
111	38	18	Marion	Mannington
120	26	12	Marion	Mannington
121	26	17	Marion	Mannington
122	39	1	Marion	Mannington
123	39	8	Marion	Mannington
128	26	18	Marion	Mannington
129	26	3	Marion	Mannington
130	26	2.1	Marion	Mannington
131	28	19	Marion	Mannington
132	39	14	Marion	Mannington
133	39	13.1	Marion	Mannington
134	39	10	Marion	Mannington
135	39	11	Marion	Mannington
144	38	20.1	Marion	Mannington

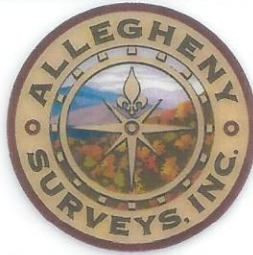
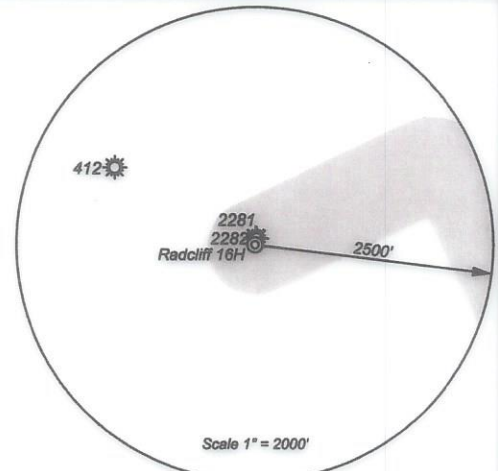
Surface Tract Owner	Acres
Jackie D. & Sheila L. Radcliff	48.08
Shelly L. Nelson	43.03
Jason G. & Heather R. Stout	99.75
Lula B. Knight	56.32
Clarence W. Sweeney	63
Jackie D. & Sheila L. Radcliff	27.35
Shelly L. Nelson	19.75
Thomas G. & Theresa A. Jones	10.25
Thomas G. & Theresa A. Jones	61.85
Dennis G. & Louise M. Hayes	74.885
Yulia Nikolaeva	115
Dorothy D. Hendershot	38.246
William E. Hendershot	39.702
Michael & Julia A. Billie	56.67
Douglas E. & Debra J. Mafield	54.669
Dennis G. & Louise M. Hayes	59.24
Jason G. & Heather R. Stout	48.12
Lula B. Knight	43.39
Ronald & Jean Hayes	21.55
Karl A. Gouzd	35.32
EBX-EM LLC	20.8
Tax Info Not Available	NA
Jason G. & Michelle R. Stout	91.9
Jason G. & Michelle R. Stout	7.5
Jason G. & Michelle R. Stout	57
Jason G. & Michelle R. Stout	7.351
Dennis Markel & John Pheasant	84
Dennis Markel & John Pheasant	62.5
Michael F. & Kerri Berthy	7.01
Dorothy D. Hendershot	2.245
Dorothy D. Hendershot	1.456
Robin R. Smith & James W. Hendershot	1.01
David A. Wright	1.17
Kerry Orloff & Michael Berthy	1.92
Kerri F. & Michael F. Berthy	9.11
Lynn E. Sturm	2.73
William D. Crouser	0.25
EBX-EM LLC	152.25
Jason G. & Michelle R. Stout	57
Albert C. Woods Heirs	90.6
Dennis Markel & John Pheasant	128.635
EBX-EM LLC	41
Thomas C. Carpenter, et al.	150.95
Larry Goll	160.04
Rickey C. Bennett	94.12
Lee R. & Sherri L. Taylor	36.09
Michael F. & Kerri Berthy	9.26
Dennis Markel & John Pheasant	12.17
Michael F. & Kerri Berthy	7
Donald Malone	0.5



**Notes:**  
**Radcliff 16H coordinates are**  
 NAD 83 N: 397,638.78 E: 1,704,136.29  
 NAD 83 Lat: 39.587939 Long: -80.439065  
 NAD 83 UTM N: 4,382,174.94 E: 548,253.79  
**Radcliff 16H Landing Point coordinates are**  
 NAD 83 N: 398,046.95 E: 1,706,458.84  
 NAD 83 Lat: 39.589126 Long: -80.429840  
 NAD 83 UTM N: 4,382,311.10 E: 548,959.31  
**Radcliff 16H Bottom Hole coordinates are**  
 NAD 83 N: 388,758.10 E: 1,710,790.30  
 NAD 83 Lat: 39.563747 Long: -80.414135  
 NAD 83 UTM N: 4,379,503.16 E: 550,326.18  
 West Virginia Coordinate system of 1983 (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
127156000	EQT Production Company, et al.	97.25
123980002	Country Roads Minerals, LLC, et al.	9
127156000	EQT Production Company, et al.	84
234650002	Paul Edward Dennison, et al.	128.635
228726001	Bounty Minerals, LLC	62.5
124408000	EQT Production Company, et al.	59.75
123819	XTO Energy, Inc.	77.948
171642001	XTO Energy, Inc.	512.948872



*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 16H  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: January 30 20 24  
 OPERATOR'S WELL NO.: Radcliff 16H  
 API WELL NO  
 47 - 049 - 02514  
 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: 482  
 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



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

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

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

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

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

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

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

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Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
<u>109790001</u>	<u>Rebecca R. Shuttlesworth, et al.</u> Rebecca R. Shuttlesworth, Power of Attorney for Robert Lee Gwinn, Sr., Widower American Shale Development, Inc. Republic Partners VIII, LLC Republic Energy Ventures, LLC American Shale Development, Inc.	1090 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
<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>127156000</u>	<u>EQT Production Company, et al.</u> Republic Energy Ventures, LLC Republic Partners VIII, LLC	97.25 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1200/1
<u>123980002</u>	<u>Country Roads Minerals, LLC, et al.</u> Robert L. Jones Antero Resources Corporation	9 ac	Antero Resources Corporation EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1211/896 AB 56/332
<u>127156000</u>	<u>EQT Production Company, et al.</u> Republic Energy Ventures, LLC Republic Partners VIII, LLC	84 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1200/1
<u>234650002</u>	<u>Paul Edward Dennison, et al.</u> Paul Edward Dennison, a married man dealing in his sole and separate property	128.635 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1337/204

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<u>228726001</u>	<u>Bounty Minerals, LLC</u> Bounty Minerals, LLC	62.5 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1323/125
<u>124408000</u>	<u>EQT Production Company, et al.</u> Dennis G. Hayes & Louise M. Hayes, married American Shale Development, Inc.	59.75 ac	American Shale Development, Inc. EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1121/375 DB 1228/1
<u>123819</u>	<u>XTO Energy, Inc.</u> XTO Energy, Inc.	77.948 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1341/1004
<u>171642001</u>	<u>XTO Energy, Inc.</u> XTO Energy, Inc.	512.948872 ac	EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1283/783

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**02/16/2024**





February 2, 2024

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

Re: Radcliff 16H 6A1 Addendum

Dear Mr. Brewer,

This letter and supporting documentation serve as EQT Production Company's addendum to the WW-6A1 form associated with this well. The lease included on this addendum is a lease in which EQT "claims the right to extract, produce or market the oil or gas", but does not propose to encounter the lease with the proposed wellbore. EQT would like to report this lease as part of our Well Work Permit Application, as it is located within 50' of our proposed permitted wellbore.

If EQT does encounter this lease, an application for a permit modification will be filed with the West Virginia DEP, Office of Oil and Gas.

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

Sincerely,

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

John Zavatchan  
Project Specialist - Permitting

Enc.

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**Radcliff 16H**  
**EQT Production Company**  
 "Detail of Lease No. 127156000"



Lease No.  
174985003

Lease No.  
127156000

Lease No.  
123980002

Proposed Well Bore

31.27'

Lease No.  
123980001

39-15  
 Jason G. & Michelle R. Stout  
 7.5 Acres

Lease No.  
174985003



Scale: 1 Inch = 100 Feet

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 WV Department of  
 Environmental Protection

Birch River Office Phone: (304) 649-8606 Fax: (304) 649-8608	237 Birch River Road Birch River, WV 26610 www.alleghenysurveys.com
PARTY CHIEF: NA	DRAWING NO: 16H Well Bore Detail.dwg
RESEARCH: NA	PROJECT NO: 113-18-M-21
SURVEYED: NA	PREPARED: February 02, 2024
FIELD CREW: NA	DRAWN BY: Tim Rutledge
Sheet 1 of 1	

02/16/2024

WW-6A1 attachment

Operator's Well No.

Radcliff 16H Addendum

Lease No.	Grantor, Lessor, etc.	Acres	Grantee, Lessee, etc.	Royalty	Book/Page
123980001	Country Roads Minerals, LLC, et al. Robert L. Jones Antero Resources Corporation	7.5 ac	Antero Resources Corporation EQT Production Company	"at least 1/8th per WV Code 22-6-8"	DB 1211/893 AB 56/332

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WV Department of  
Environmental Protection

02/16/2024





February 2, 2024

Via FedEx Overnight Delivery

West Virginia Department of Environmental Protection  
Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304

RE: Well Work Permit Application Modification – EXPEDITED REVIEW REQUESTED  
Radcliff 16H  
Permit Number 47-049-02514  
Mannington District, Marion County, WV

WVDEP Recipient,

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

- Check in the amount \$2,500.00 for the permit fee and an additional \$5,000.00 for the expedited permit modification fee
- Completed WW-6B and supporting documents, approved by the O&G Inspector
- Well Location Plat
- Completed Form WW-6A1 and supporting documentation
- Hydraulic Fracturing Monitoring Plan
- Offset Well Map and Table
- Water Management Plan Modification Application

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

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

Best Regards,

John Zavatchan  
Project Specialist – Permitting  
[jzavatchan@eqt.com](mailto:jzavatchan@eqt.com)  
724-746-9073

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CK# 602148  
\$ 5000<sup>00</sup>

CK# 601416  
\$ 2500<sup>00</sup>

02/16/2024