

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47 - 103 - 03431 County Wetzel District Grant  
Quad Big Run Pad Name BIG464 Field/Pool Name N/A  
Farm name EQT Production Company Well Number BIG464 1H (L004034)  
Operator (as registered with the OOG) EQT Production Company  
Address 2400 Ansys Drive, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,379,896.63 Easting 541,528.39  
Landing Point of Curve Northing 4,379,664.08 Easting 540,447.76  
Bottom Hole Northing 4,383,497.75 Easting 538,050.93

Elevation (ft) 1246 GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)

Synthetic Oil Based Mud 13.95 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 01/31/2022 Date drilling commenced 09/27/2021 Date drilling ceased 04/06/2022 \*  
Date completion activities began 04/09/2023 Date completion activities ceased 08/07/2023 \*  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 96,175,239,419 Open mine(s) (Y/N) depths N WV Department of Environmental Protection  
Salt water depth(s) ft 1711,1835 Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 535,782,878,904 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by: SMW 12-21-23

**APPROVED**

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API 47- 103 - 03431 Farm name EQT Production Company Well number BIG464 1H (L004034)

CASING STRINGS	Hole Size	Casing Size	Depth (GL)	New or Used	Grade wt/ft	Basket Depth(s) (GL)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	26"	40'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	1025'	NEW	J-55 54.5#	879'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2444'	NEW	J-55 36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	6"	23,669'	NEW	P110 24#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 1000' GL, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	83	15.6	1.18	98	0	8+
Surface	CLASS A	925	16.0	1.13	1045	0	8
Coal							
Intermediate 1	CLASS A	865	15.6	1.18	1020	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4480	15.2	1.04	4659	1000'	8+
Tubing							

Drillers TD (ft) 23,686' Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) <sup>1056</sup> \_\_\_\_\_

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No  Conventional  Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

CONDUCTOR- NONE

SURFACE- ON SHOE TRACK AND EVERY 500' TO SURFACE

INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE

PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 1971'

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>PERFORATION DATA ATTACHED</b>					

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
<b>STIMULATION DATA ATTACHED</b>								

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
	TVD	MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas 5046 mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water 137 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

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Please insert additional pages as applicable.

Drilling Contractor Patterson UTI (Rig 294)  
Address 207 Carlton Dr City Eighty Four State PA Zip 15330

Logging Company Baker Hughes  
Address 400 Technology Dr Suite 100 City Canonsburg State PA Zip 15317

Cementing Company Halliburton  
Address 121 Champion Way Suite 110 City Canonsburg State PA Zip 15317

Cementing Company Universal Pressure Pumping, Inc.  
Address 13549 S. Moisertown Road City Meadville State PA Zip 16335

Please insert additional pages as applicable.

Completed by Adam Hughey Telephone 724-575-5475  
Signature \_\_\_\_\_ Title Director of Completions Date 2023-10-09

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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Drilling Contractor Falcon (Rig 25)  
Address 1120 US-119 City Indiana State PA Zip 15701

Logging Company Scientific Drilling International  
Address 124 Vista Drive City Charleroi State PA Zip 15022

Logging Company GyroData  
Address 73 Noblestown Road City Carnegie State PA Zip 15106

Stimulation Contractor Evolution Well Services  
Address 1780 Hughes Landing Blvd Ste 125 City The Woodlands State TX Zip 77380

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Well # BIG464 1H (L004034) Final Formations API# 47-103-03431				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	535	535
Waynesburg Coal	535	535	538	538
Sand/Shale	538	538	782	782
Mapleton Coal	782	782	784	784
Sand/Shale	784	784	878	878
Sewickley Coal	878	878	880	880
Sand/Shale	886	886	904	904
Pittsburgh Coal	904	904	911	911
Sand/Shale	911	911	1,793	1,787
Maxton	1,793	1,787	1,972	1,963
Sand/Shale	1,972	1,963	2,235	2,221
Big Lime	2,235	2,221	2,311	2,296
Sand/Shale	2,311	2,296	2,323	2,307
Big Injun	2,323	2,307	2,392	2,375
Sand/Shale	2,392	2,375	2,521	2,503
Weir	2,521	2,503	2,671	2,650
Sand/Shale	2,671	2,650	2,736	2,713
Gantz	2,736	2,713	2,772	2,748
Sand/Shale	2,772	2,748	2,877	2,848
Fifty foot	2,877	2,848	2,933	2,900
Sand/Shale	2,933	2,900	2,972	2,936
Thirty foot	2,972	2,936	2,999	2,961
Sand/Shale	2,999	2,961	3,028	2,988
Gordon	3,028	2,988	3,073	3,029
Sand/Shale	3,073	3,029	3,098	3,052
Forth Sand	3,098	3,052	3,111	3,064
Sand/Shale	3,111	3,064	3,170	3,117
Fifth Sand	3,170	3,117	3,189	3,134
Sand/Shale	3,189	3,134	3,223	3,164
Bayard	3,223	3,164	3,241	3,180
Sand/Shale	3,241	3,180	3,646	3,513
Warren	3,646	3,513	3,670	3,532
Sand/Shale	3,670	3,532	3,766	3,609
Speechley	3,766	3,609	3,814	3,648
Sand/Shale	3,814	3,648	4,124	3,893
Balltown A	4,124	3,893	4,139	3,905
Sand/Shale	4,139	3,905	4,609	4,291
Riley	4,609	4,291	4,651	4,326
Sand/Shale	4,651	4,326	5,238	4,802
Benson	5,238	4,802	5,287	4,841
Sand/Shale	5,287	4,841	5,652	5,139
Alexander	5,652	5,139	5,719	5,194
Elks	5,719	5,194	6,770	6,041
Sonyea	6,770	6,041	7,901	6,954
Middlesex	7,901	6,954	8,138	7,136

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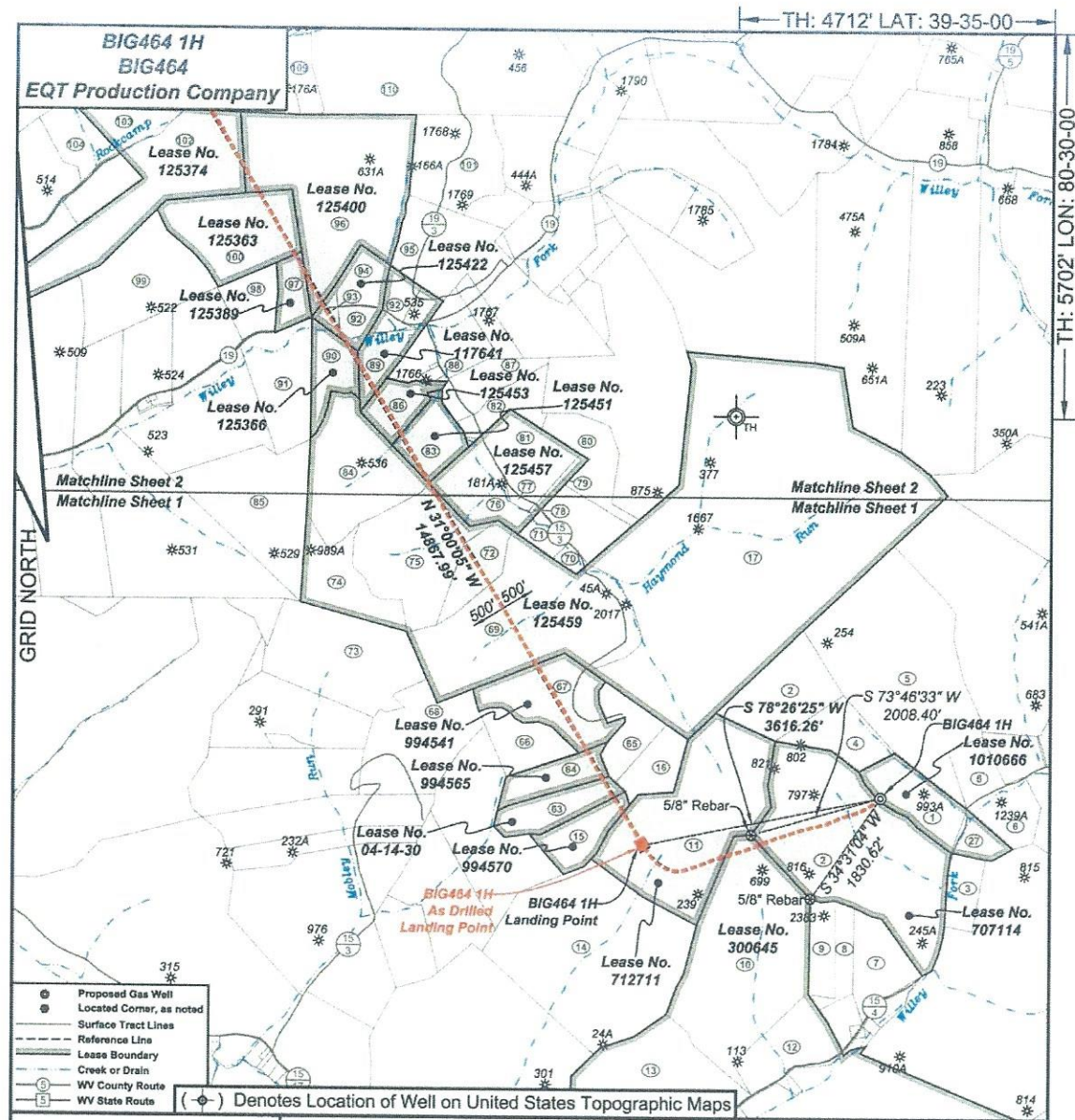
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Genesee	8,138	7,136	8,287	7,233
Geneseo	8,287	7,233	8,337	7,262
Tully	8,337	7,262	8,380	7,285
Hamilton	8,380	7,285	8,680	7,393
Marcellus	8,680	7,393	23,686	7,447

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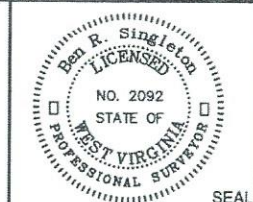
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I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Ben R. Singleton*

P.S. 2092



FILE NO: 125-16  
 DRAWING NO: BIG464 1H  
 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: April 22, 2022  
 OPERATOR'S WELL NO.: BIG464 1H  
 API WELL NO: 47-103-03431  
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel

SURFACE OWNER: EQT Production Company ACREAGE: 25.25  
 ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO.: 1010666 ACREAGE: 32

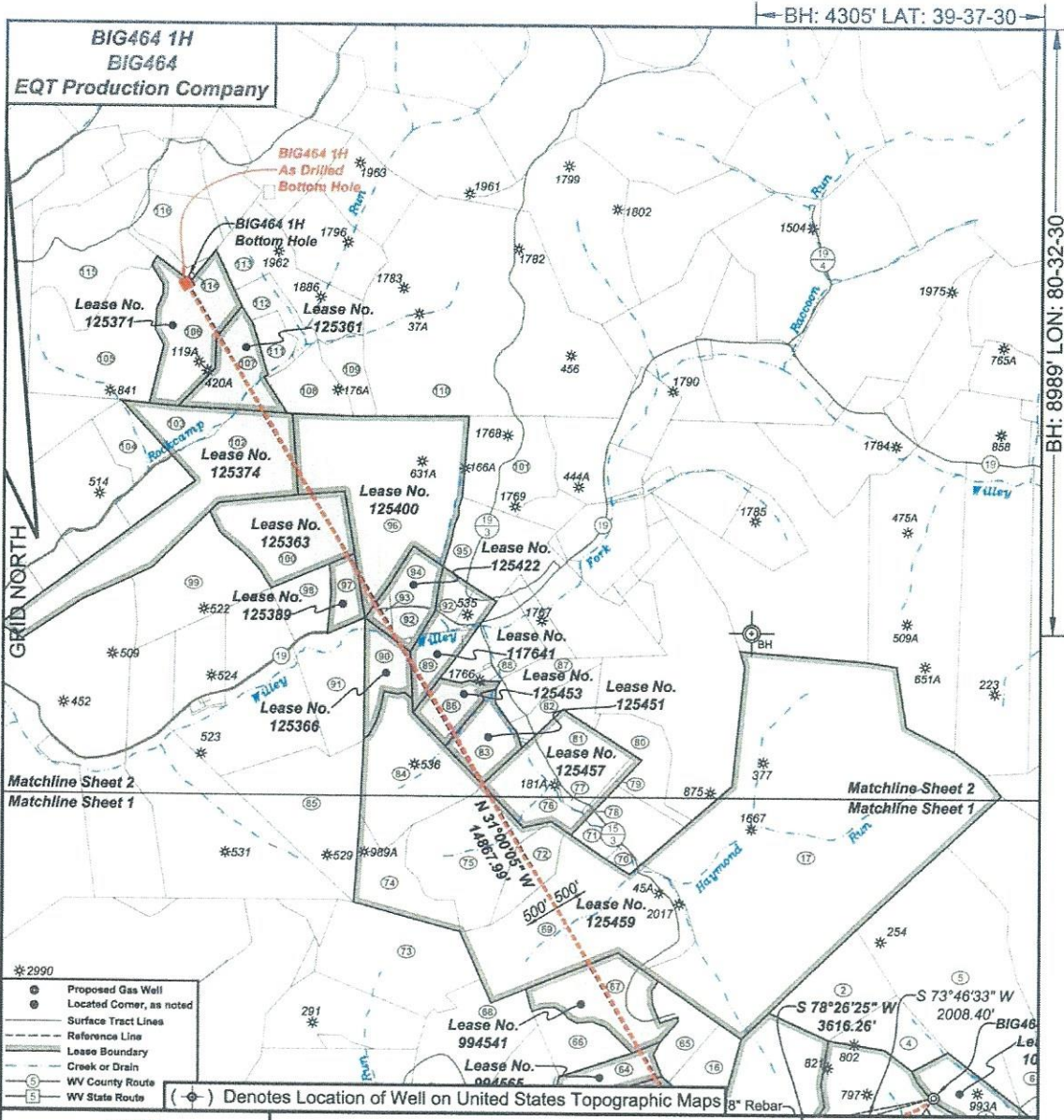
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
 Canonsburg, PA 15317 Bridgeport, WV 26330

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 STATE COUNTY PERMIT

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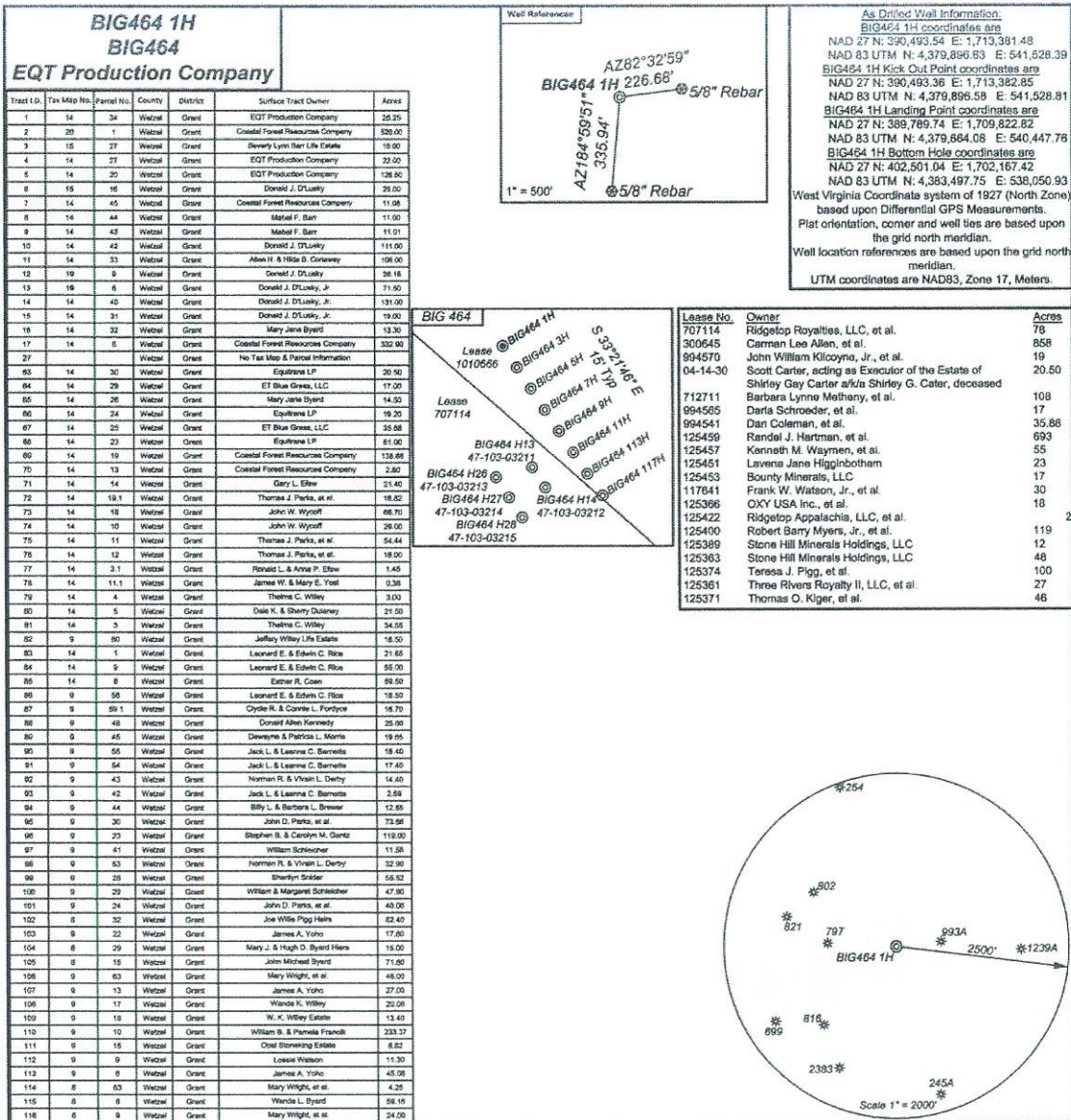
SURFACE OWNER: EQT Production Company ACREAGE: 25.25  
 ROYALTY OWNER: Ridgeway Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
 Canonsburg, PA 15317 Bridgeport, WV 26330

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DATE: April 22 20 22

OPERATOR'S WELL NO: BIG464 1H

API WELL NO

47 - 103 - 03431

STATE COUNTY PERMIT

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DISTRICT: Grant COUNTY: Wetzel

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ROYALTY OWNER: Ridgetop Royalties, LLC, et al LEASE NO: 1010666 ACREAGE: 32

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Perforation Data

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Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
2	04/19/2023	23583	23542	15	Marcellus
3	04/19/2023	23523	23482	15	Marcellus
4	04/19/2023	23463	23421	15	Marcellus
5	04/20/2023	23402	23361	15	Marcellus
6	04/20/2023	23342	23301	15	Marcellus
7	04/20/2023	23282	23241	15	Marcellus
8	04/20/2023	23221	23180	15	Marcellus
9	04/21/2023	23161	23120	15	Marcellus
10	04/22/2023	23101	23060	15	Marcellus
11	04/22/2023	23041	22999	15	Marcellus
12	04/23/2023	22980	22939	15	Marcellus
13	04/23/2023	22920	22879	15	Marcellus
14	04/23/2023	22860	22818	15	Marcellus
15	04/24/2023	22799	22758	15	Marcellus
16	04/24/2023	22739	22698	15	Marcellus
17	04/24/2023	22679	22638	15	Marcellus
18	04/25/2023	22618	22577	15	Marcellus
19	04/25/2023	22558	22517	15	Marcellus
20	04/26/2023	22498	22457	15	Marcellus
21	04/27/2023	22438	22396	15	Marcellus
22	04/27/2023	22377	22336	15	Marcellus
23	04/28/2023	22317	22276	15	Marcellus
24	04/28/2023	22257	22215	15	Marcellus
25	04/28/2023	22196	22155	15	Marcellus
26	04/28/2023	22136	22095	15	Marcellus
27	04/29/2023	22076	22035	15	Marcellus
28	04/29/2023	22015	21974	15	Marcellus
29	04/30/2023	21955	21914	15	Marcellus
30	04/30/2023	21895	21854	15	Marcellus
31	05/04/2023	21835	21793	15	Marcellus
32	05/08/2023	21774	21733	15	Marcellus
33	05/09/2023	21714	21673	15	Marcellus
34	05/09/2023	21654	21612	15	Marcellus
35	05/10/2023	21593	21552	15	Marcellus
36	05/10/2023	21533	21492	15	Marcellus
39	05/11/2023	21352	21311	15	Marcellus
40	05/12/2023	21292	21251	15	Marcellus
41	05/12/2023	21232	21190	15	Marcellus
42	05/13/2023	21171	21130	15	Marcellus
43	05/13/2023	21111	21070	15	Marcellus
44	05/14/2023	21051	21009	15	Marcellus
45	05/14/2023	20990	20949	15	Marcellus
46	05/15/2023	20930	20889	15	Marcellus

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47	05/15/2023	20870	20829	15	Marcellus
48	05/15/2023	20809	20768	15	Marcellus
49	05/15/2023	20749	20708	15	Marcellus
50	05/16/2023	20689	20648	15	Marcellus
51	05/16/2023	20629	20587	15	Marcellus
52	05/16/2023	20568	20527	15	Marcellus
53	05/17/2023	20508	20467	15	Marcellus
54	05/17/2023	20448	20406	15	Marcellus
55	05/17/2023	20387	20346	15	Marcellus
56	05/17/2023	20327	20286	15	Marcellus
57	05/18/2023	20267	20226	15	Marcellus
58	05/19/2023	20206	20165	15	Marcellus
59	05/19/2023	20146	20105	15	Marcellus
60	05/19/2023	20086	20045	15	Marcellus
61	05/20/2023	20026	19984	15	Marcellus
62	05/20/2023	19965	19924	15	Marcellus
63	05/20/2023	19905	19864	15	Marcellus
64	05/20/2023	19845	19803	15	Marcellus
65	05/20/2023	19784	19743	15	Marcellus
66	05/21/2023	19724	19683	15	Marcellus
67	05/21/2023	19664	19623	15	Marcellus
68	05/21/2023	19603	19562	15	Marcellus
69	05/21/2023	19543	19502	15	Marcellus
70	05/21/2023	19483	19442	15	Marcellus
71	05/22/2023	19423	19381	15	Marcellus
72	05/22/2023	19362	19321	15	Marcellus
73	05/22/2023	19302	19261	15	Marcellus
74	05/22/2023	19242	19200	15	Marcellus
75	05/22/2023	19181	19140	15	Marcellus
76	05/22/2023	19121	19080	15	Marcellus
77	05/23/2023	19061	19020	15	Marcellus
78	05/23/2023	19000	18959	15	Marcellus
79	05/23/2023	18940	18899	15	Marcellus
80	05/23/2023	18880	18839	15	Marcellus
81	05/24/2023	18820	18778	15	Marcellus
82	05/24/2023	18759	18718	15	Marcellus
83	05/24/2023	18699	18658	15	Marcellus
84	05/24/2023	18639	18597	15	Marcellus
85	05/24/2023	18578	18537	15	Marcellus
86	05/25/2023	18518	18477	15	Marcellus
87	05/25/2023	18458	18417	15	Marcellus
88	05/25/2023	18397	18356	15	Marcellus
89	05/25/2023	18337	18296	15	Marcellus
90	05/25/2023	18277	18236	15	Marcellus
91	05/25/2023	18217	18175	15	Marcellus
92	05/26/2023	18156	18115	15	Marcellus
93	05/26/2023	18096	18055	15	Marcellus

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94	05/26/2023	18036	17994	15	Marcellus
95	05/27/2023	17975	17934	15	Marcellus
96	05/27/2023	17915	17874	15	Marcellus
97	05/27/2023	17855	17814	15	Marcellus
98	05/27/2023	17794	17753	15	Marcellus
99	05/27/2023	17734	17693	15	Marcellus
100	05/27/2023	17674	17633	15	Marcellus
101	05/28/2023	17614	17572	15	Marcellus
102	05/28/2023	17553	17512	15	Marcellus
103	05/28/2023	17493	17452	15	Marcellus
104	05/28/2023	17433	17391	15	Marcellus
105	05/28/2023	17372	17331	15	Marcellus
106	05/29/2023	17312	17271	15	Marcellus
107	05/29/2023	17252	17211	15	Marcellus
108	05/29/2023	17191	17150	15	Marcellus
109	05/29/2023	17131	17090	15	Marcellus
110	05/29/2023	17071	17030	15	Marcellus
111	05/30/2023	17011	16969	15	Marcellus
112	05/30/2023	16950	16909	15	Marcellus
113	06/01/2023	16890	16849	15	Marcellus
114	06/01/2023	16830	16788	15	Marcellus
115	06/01/2023	16769	16728	15	Marcellus
116	06/02/2023	16709	16668	15	Marcellus
117	06/02/2023	16649	16608	15	Marcellus
118	06/02/2023	16588	16547	15	Marcellus
119	06/02/2023	16528	16487	15	Marcellus
120	06/02/2023	16468	16427	15	Marcellus
121	06/03/2023	16408	16366	15	Marcellus
122	06/03/2023	16347	16306	15	Marcellus
123	06/04/2023	16287	16246	15	Marcellus
124	06/04/2023	16227	16185	15	Marcellus
125	06/04/2023	16166	16125	15	Marcellus
126	06/04/2023	16106	16065	15	Marcellus
127	06/04/2023	16046	16005	15	Marcellus
128	06/07/2023	15985	15944	15	Marcellus
129	06/07/2023	15925	15884	15	Marcellus
130	06/07/2023	15865	15824	15	Marcellus
131	06/07/2023	15805	15763	15	Marcellus
132	06/07/2023	15744	15703	15	Marcellus
133	06/08/2023	15684	15643	15	Marcellus
134	06/08/2023	15624	15582	15	Marcellus
135	06/08/2023	15563	15522	15	Marcellus
136	06/08/2023	15503	15462	15	Marcellus
137	06/08/2023	15443	15402	15	Marcellus
138	06/09/2023	15382	15341	15	Marcellus
139	06/09/2023	15322	15281	15	Marcellus
140	06/09/2023	15262	15221	15	Marcellus

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141	06/09/2023	15202	15160	15	Marcellus
142	06/10/2023	15141	15100	15	Marcellus
143	06/10/2023	15081	15040	15	Marcellus
144	06/10/2023	15021	14979	15	Marcellus
145	06/10/2023	14960	14919	15	Marcellus
146	06/12/2023	14900	14859	15	Marcellus
147	06/12/2023	14840	14799	15	Marcellus
148	06/13/2023	14779	14738	15	Marcellus
149	06/13/2023	14719	14678	15	Marcellus
150	06/13/2023	14659	14618	15	Marcellus
152	06/14/2023	14538	14497	15	Marcellus
153	06/14/2023	14478	14437	15	Marcellus
154	06/14/2023	14418	14376	15	Marcellus
155	06/14/2023	14357	14316	15	Marcellus
156	06/15/2023	14297	14256	15	Marcellus
157	06/15/2023	14237	14196	15	Marcellus
158	06/15/2023	14176	14135	15	Marcellus
159	06/15/2023	14116	14075	15	Marcellus
160	06/15/2023	14056	14015	15	Marcellus
161	06/16/2023	13996	13954	15	Marcellus
162	06/16/2023	13935	13894	15	Marcellus
163	06/16/2023	13875	13834	15	Marcellus
164	06/16/2023	13815	13773	15	Marcellus
165	06/17/2023	13754	13713	15	Marcellus
166	06/17/2023	13694	13653	15	Marcellus
167	06/18/2023	13634	13593	15	Marcellus
168	06/18/2023	13573	13532	15	Marcellus
169	06/19/2023	13513	13472	15	Marcellus
170	06/19/2023	13453	13412	15	Marcellus
171	06/19/2023	13393	13351	15	Marcellus
172	06/19/2023	13332	13291	15	Marcellus
173	06/20/2023	13272	13231	15	Marcellus
174	06/20/2023	13212	13170	15	Marcellus
175	06/20/2023	13151	13110	15	Marcellus
176	06/20/2023	13091	13050	15	Marcellus
177	06/21/2023	13031	12990	15	Marcellus
178	06/21/2023	12970	12929	15	Marcellus
179	06/21/2023	12910	12869	15	Marcellus
180	06/21/2023	12850	12809	15	Marcellus
181	06/21/2023	12790	12748	15	Marcellus
182	06/22/2023	12729	12688	15	Marcellus
183	06/22/2023	12669	12628	15	Marcellus
184	06/22/2023	12609	12567	15	Marcellus
185	06/22/2023	12548	12507	15	Marcellus
186	06/22/2023	12488	12447	15	Marcellus
187	06/23/2023	12428	12387	15	Marcellus
188	06/23/2023	12367	12326	15	Marcellus

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189	06/24/2023	12307	12266	15	Marcellus
190	06/24/2023	12247	12206	15	Marcellus
191	06/24/2023	12187	12145	15	Marcellus
192	06/24/2023	12126	12085	15	Marcellus
193	06/25/2023	12066	12025	15	Marcellus
194	06/25/2023	12006	11964	15	Marcellus
195	06/25/2023	11945	11904	15	Marcellus
196	06/25/2023	11885	11844	15	Marcellus
197	06/25/2023	11825	11784	15	Marcellus
198	06/25/2023	11764	11723	15	Marcellus
199	06/26/2023	11704	11663	15	Marcellus
200	06/26/2023	11644	11603	15	Marcellus
201	06/27/2023	11584	11542	15	Marcellus
202	06/27/2023	11523	11482	15	Marcellus
203	06/27/2023	11463	11422	15	Marcellus
204	06/27/2023	11403	11361	15	Marcellus
205	06/27/2023	11342	11301	15	Marcellus
206	06/27/2023	11282	11241	15	Marcellus
207	06/27/2023	11222	11181	15	Marcellus
208	06/27/2023	11161	11120	15	Marcellus
209	06/27/2023	11101	11060	15	Marcellus
210	06/28/2023	11041	11000	15	Marcellus
211	06/28/2023	10981	10939	15	Marcellus
212	06/28/2023	10920	10879	15	Marcellus
213	06/28/2023	10860	10819	15	Marcellus
214	06/28/2023	10800	10758	15	Marcellus
215	06/29/2023	10739	10698	15	Marcellus
216	06/29/2023	10679	10638	15	Marcellus
217	06/29/2023	10619	10578	15	Marcellus
218	06/29/2023	10558	10517	15	Marcellus
219	06/29/2023	10498	10457	15	Marcellus
220	06/29/2023	10438	10397	15	Marcellus
221	06/29/2023	10378	10336	15	Marcellus
222	06/29/2023	10317	10276	15	Marcellus
223	06/30/2023	10257	10216	15	Marcellus
224	06/30/2023	10197	10155	15	Marcellus
225	07/01/2023	10136	10095	15	Marcellus
226	07/01/2023	10076	10035	15	Marcellus
227	07/02/2023	10016	9975	15	Marcellus
228	07/02/2023	9955	9914	15	Marcellus
229	07/02/2023	9895	9854	15	Marcellus
230	07/02/2023	9835	9794	15	Marcellus
231	07/02/2023	9775	9733	15	Marcellus
232	07/02/2023	9714	9673	15	Marcellus
233	07/02/2023	9654	9613	15	Marcellus
234	07/02/2023	9594	9552	15	Marcellus
235	07/02/2023	9533	9492	15	Marcellus
236	07/03/2023	9473	9432	15	Marcellus

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237	07/03/2023	9413	9372	15	Marcellus
238	07/03/2023	9352	9311	15	Marcellus
239	07/03/2023	9292	9251	15	Marcellus
240	07/03/2023	9232	9191	15	Marcellus
241	07/03/2023	9172	9130	15	Marcellus
242	07/03/2023	9111	9070	15	Marcellus
243	07/03/2023	9051	9010	15	Marcellus
244	07/03/2023	8991	8949	15	Marcellus
245	07/03/2023	8930	8889	15	Marcellus
246	07/04/2023	8870	8829	15	Marcellus
247	07/04/2023	8810	8769	15	Marcellus
248	07/04/2023	8749	8708	15	Marcellus

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# Stimulation Data

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Stage #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	04/11/2023	75	9316	7115	4015	176024	4435	
2	04/19/2023	66	9222	6958	4615	132276	4363	
3	04/19/2023	71	9347	4068	4905	132141	3776	
4	04/20/2023	74	9339	7669	5016	132203	3640	
5	04/20/2023	83	9366	7115	5393	132203	3664	
6	04/20/2023	62	9236	6113	4966	132269	4652	
7	04/21/2023	93	9285	7122	5836	132025	3770	
8	04/21/2023	85	9325	6888	6029	132013	3565	
9	04/21/2023	64	9298	6973	6191	132344	3584	
10	04/22/2023	63	9319	7641	5801	132465	8581	
11	04/23/2023	66	9414	7882	5952	132043	3739	
12	04/23/2023	91	9312	6901	6402	132140	3719	
13	04/23/2023	68	9206	7134	6068	132350	3622	
14	04/24/2023	70	9287	7224	5663	133201	3627	
15	04/24/2023	76	9223	6914	6095	132435	3565	
16	04/24/2023	78	9208	6668	5697	132385	3555	
17	04/25/2023	60	9290	7077	5925	132582	4876	
18	04/25/2023	92	9319	6455	6355	132017	3505	
19	04/26/2023	79	9217	7231	5860	132374	3526	
20	04/27/2023	68	9290	6726	5754	132031	3633	
21	04/27/2023	90	9359	7385	6112	132164	3606	
22	04/28/2023	72	9305	7551	5876	132006	3584	
23	04/28/2023	68	9303	6711	5889	132002	3549	
24	04/28/2023	86	9397	7291	6476	132043	3564	
25	04/28/2023	95	9505	6312	5109	132058	3530	
26	04/29/2023	59	8966	6508	6295	132008	3463	
27	04/29/2023	43	9413	7234	5326	132061	3594	
28	04/30/2023	73	9423	7132	6104	132036	4118	
29	04/30/2023	75	9336	7643	5962	132010	3606	
30	05/04/2023	87	9294	6391	5866	132238	3541	
31	05/08/2023	99	9263	5879	5993	132228	3672	
32	05/09/2023	64	9233	6977	5896	132032	3563	
33	05/10/2023	75	9322	7331	5961	132040	3645	
34	05/10/2023	82	9295	6677	5988	132115	3576	
35	05/10/2023	80	9365	6743	5803	132085	3471	
36	05/10/2023	84	9149	6992	5682	132120	3551	
37	05/11/2023	96	9020	6011	6098	132027	3651	
38	05/11/2023	51	9272	6555	5184	132123	3658	
39	05/12/2023	66	9130	7035	5251	132384	3512	
40	05/12/2023	69	8985	7181	5534	132261	3833	
41	05/12/2023	83	9082	6588	5552	132433	3647	
42	05/13/2023	72	9243	6546	5435	132199	3671	
43	05/14/2023	48	9230	6073	5580	132049	3644	

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44	05/15/2023	78	9207	7346	5930	132118	3803
45	05/15/2023	84	9313	6381	5834	132358	3560
46	05/15/2023	75	9380	7317	5928	132238	3498
47	05/15/2023	68	9385	7172	5252	132219	3582
48	05/16/2023	87	9316	7490	5710	132425	3655
49	05/16/2023	84	9152	6140	5255	132393	3574
50	05/16/2023	86	9360	5786	5832	132240	3619
51	05/16/2023	55	9377	6667	5499	132038	3534
52	05/17/2023	67	9268	7705	6094	132078	3879
53	05/17/2023	81	9207	6691	6110	132166	3684
54	05/17/2023	79	9122	7382	6133	132324	3484
55	05/18/2023	72	9099	8351	5691	132280	3510
56	05/18/2023	88	9168	6281	5855	132216	3522
57	05/19/2023	100	9037	5757	6219	132378	3454
58	05/19/2023	77	9219	6223	5730	132051	3641
59	05/20/2023	87	8611	6379	6227	132344	3552
60	05/20/2023	81	9038	7508	6305	132447	3471
61	05/20/2023	77	9221	7156	5629	132177	3614
62	05/20/2023	69	9274	6814	5882	132235	3820
63	05/20/2023	89	9268	6665	6002	132283	3734
64	05/20/2023	85	9026	6088	5614	132356	3664
65	05/21/2023	87	9122	6446	5750	132237	3573
66	05/21/2023	92	9127	6597	6095	132439	3419
67	05/21/2023	89	9231	6843	6031	132152	3613
68	05/21/2023	74	9337	7599	6030	132112	3796
69	05/21/2023	90	9324	6517	5973	132114	3671
70	05/22/2023	72	9179	7145	6311	132272	3612
71	05/22/2023	91	9172	6632	5921	132374	3721
72	05/22/2023	86	9342	7005	6007	132145	3718
73	05/22/2023	87	9346	7211	6063	132096	3773
74	05/22/2023	63	9312	7678	5968	132094	3498
75	05/22/2023	79	9283	6929	5887	132289	3815
76	05/23/2023	55	9079	6765	6038	132250	3536
77	05/23/2023	67	9353	7965	5624	132016	3916
78	05/23/2023	65	9334	7499	5707	132060	3656
79	05/23/2023	63	9113	7306	6059	132314	3985
80	05/24/2023	70	9165	7968	5810	132341	3647
81	05/24/2023	78	9070	6664	5965	132286	3556
82	05/24/2023	93	9216	7603	5658	132105	3919
83	05/24/2023	63	9161	6914	6056	132198	3709
84	05/24/2023	70	9094	6949	6392	132303	3555
85	05/25/2023	78	9047	7065	5846	132419	3666
86	05/25/2023	86	9087	6965	6300	132444	3372
87	05/25/2023	88	9228	6756	5824	132290	3473
88	05/25/2023	88	9229	6962	5945	132060	3413
89	05/25/2023	79	9171	7863	5866	132169	3559
90	05/26/2023	77	9224	7510	5761	132011	3513

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91	05/26/2023	99	9047	5731	5905	132169	3338
92	05/26/2023	73	9233	7018	5828	132077	3458
93	05/27/2023	63	9209	6810	5974	132081	3502
94	05/27/2023	91	9169	6115	5908	132059	3353
95	05/27/2023	97	9203	6485	5840	132003	3403
96	05/27/2023	81	9216	7403	6155	132000	3511
97	05/27/2023	93	9200	7701	6043	132000	3322
98	05/27/2023	85	9138	6587	5881	132015	3442
99	05/28/2023	94	9133	6015	6037	132058	3397
100	05/28/2023	78	9160	7221	5983	132092	3387
101	05/28/2023	86	9234	7677	5867	132031	3414
102	05/28/2023	85	9191	6541	5711	132049	3512
103	05/28/2023	96	9214	6693	5762	132001	3524
104	05/28/2023	100	9033	6319	5864	132117	3332
105	05/29/2023	46	9165	7365	5567	132069	3368
106	05/29/2023	79	9164	7115	5822	132003	3379
107	05/29/2023	99	9003	6718	5874	132008	3355
108	05/29/2023	88	9122	6689	5436	132015	3453
109	05/29/2023	90	9137	6737	5782	132063	3333
110	05/30/2023	86	9133	7283	5722	132108	3340
111	05/30/2023	83	9106	7552	5722	132049	3420
112	05/30/2023	94	9149	6657	6025	132050	3370
113	06/01/2023	66	9247	7073	5913	132052	3392
114	06/02/2023	60	9143	7427	5552	132028	3487
115	06/02/2023	71	9159	7054	5837	132000	3412
116	06/02/2023	85	9205	6906	5678	132279	3586
117	06/02/2023	86	9216	7407	5438	132155	3309
118	06/02/2023	87	9276	7326	5999	132012	3511
119	06/03/2023	86	9142	7629	5865	132088	3396
120	06/03/2023	87	9197	7586	5990	132079	3457
121	06/03/2023	88	9219	7411	5995	132111	3411
122	06/04/2023	43	9005	6933	5941	132047	6552
123	06/04/2023	78	9209	7301	5569	132078	3410
124	06/04/2023	79	9192	7241	5435	132199	3443
125	06/05/2023	87	9116	7484	5662	132103	3393
126	06/05/2023	70	9174	7258	5713	132004	3347
127	06/07/2023	83	9215	6874	5726	132017	3363
128	06/07/2023	67	9176	7664	5696	132112	3473
129	06/07/2023	82	9226	7580	5868	132140	3266
130	06/07/2023	89	9239	6852	5892	135000	3505
131	06/07/2023	75	9169	7813	5735	132083	3471
132	06/08/2023	84	9163	7740	5918	132041	3419
133	06/08/2023	83	9219	5942	5877	132211	3887
134	06/08/2023	86	9227	7140	6187	132287	3484
135	06/08/2023	46	9228	8063	6002	132022	3454
136	06/09/2023	71	9127	7048	6478	132356	3363
137	06/09/2023	85	9100	6917	5968	132420	3372

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138	06/09/2023	87	9199	7745	5875	132210	3395
139	06/09/2023	82	8867	6566	5403	132196	3440
140	06/10/2023	89	9093	6731	5935	132455	3383
141	06/10/2023	98	8721	5869	6056	132477	3450
142	06/10/2023	65	9023	7263	6301	132324	3314
143	06/10/2023	63	8927	6906	5236	132129	3382
144	06/10/2023	52	8986	6840	5333	132135	3465
145	06/12/2023	37	9190	5630	5237	35278	1523
146	06/12/2023	96	8867	6117	5399	229338	5341
147	06/13/2023	96	8775	7078	5345	132436	3375
148	06/13/2023	97	8670	7037	5689	132183	3404
149	06/13/2023	97	8804	6530	5486	132151	3381
150	06/13/2023	97	8948	6554	5734	132443	3296
151	06/14/2023	100	8628	6275	5754	132302	3288
152	06/14/2023	99	8543	6581	5647	132447	3285
153	06/14/2023	97	8525	6347	6461	132339	3356
154	06/15/2023	98	8953	7495	5253	132418	3293
155	06/15/2023	99	8454	5647	6176	132490	3191
156	06/15/2023	95	8855	6553	5979	132288	3119
157	06/15/2023	94	8965	6713	5640	132080	3209
158	06/15/2023	95	8918	6901	5707	132299	3282
159	06/16/2023	93	8904	6796	5429	132403	3243
160	06/16/2023	99	8710	6895	5602	132446	3276
161	06/16/2023	96	8769	6757	5940	132154	3271
162	06/16/2023	98	8858	6884	5805	132104	3254
163	06/17/2023	99	8683	6257	5785	132601	3149
164	06/17/2023	98	8796	6878	6016	132399	3209
165	06/17/2023	92	8885	6743	5796	132198	3259
166	06/17/2023	98	8645	6825	6397	132090	3289
167	06/18/2023	98	8723	6478	5759	132165	3220
168	06/19/2023	100	8345	6508	5545	132364	3084
169	06/19/2023	100	8652	6129	5775	132154	3109
170	06/19/2023	97	8753	6486	5294	132091	3201
171	06/19/2023	99	8937	7057	5570	132160	3204
172	06/20/2023	99	8802	6640	5751	132123	3123
173	06/20/2023	89	8696	7112	5630	132022	3210
174	06/20/2023	93	8849	7577	5609	132155	3198
175	06/21/2023	96	8776	6439	5804	132374	3209
176	06/21/2023	98	8795	6840	6075	132396	3247
177	06/21/2023	97	8729	6126	6008	132069	3218
178	06/21/2023	94	8997	7114	6024	132090	3234
179	06/21/2023	95	8998	6650	5702	132106	3242
180	06/22/2023	88	9152	6952	6066	132488	3242
181	06/22/2023	90	9116	6781	5812	132425	3183
182	06/22/2023	89	9190	6427	5883	132111	3201
183	06/22/2023	93	9048	6806	5794	132160	3086
184	06/23/2023	95	8908	7184	6014	132153	3172

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185	06/23/2023	95	8976	6988	6764	132110	3185
186	06/23/2023	93	9042	7353	5902	132024	3195
187	06/23/2023	93	8740	7252	5649	132095	3218
188	06/24/2023	94	9098	7048	5974	132092	3080
189	06/24/2023	94	8855	6813	5907	132190	3161
190	06/24/2023	93	8924	6808	5863	132101	3089
191	06/24/2023	99	8760	6379	5594	132179	3261
192	06/25/2023	94	8944	6441	5818	132172	3065
193	06/25/2023	93	8949	7005	5947	132062	3188
194	06/25/2023	96	9003	6773	5988	132219	3187
195	06/25/2023	92	9039	6904	5928	132081	3191
196	06/26/2023	100	8359	6075	5749	132108	3094
197	06/26/2023	101	8885	7290	5557	132073	3162
198	06/26/2023	101	8674	6539	5518	132145	3160
199	06/26/2023	98	8807	6606	5344	132080	3066
200	06/27/2023	97	8928	7259	5640	132115	3106
201	06/27/2023	100	8722	6731	5497	132072	3146
202	06/27/2023	98	8659	6589	5524	132002	3127
203	06/27/2023	95	8791	6057	5555	132019	3121
204	06/27/2023	100	8625	6426	5364	132017	3126
205	06/27/2023	97	8808	6660	5877	132055	3107
206	06/27/2023	100	8049	6217	5719	132061	3069
207	06/28/2023	95	8931	6728	5649	132102	3028
208	06/28/2023	99	8959	6498	5456	132097	3132
209	06/28/2023	97	8956	7361	5672	132122	3113
210	06/28/2023	97	8941	6822	5724	132016	3086
211	06/28/2023	99	8532	5798	5610	132005	3159
212	06/28/2023	93	8916	6936	5546	132002	3165
213	06/29/2023	94	9040	6882	5784	132015	3043
214	06/29/2023	100	8779	6953	5577	132067	3039
215	06/29/2023	96	8828	6677	5773	132088	3066
216	06/29/2023	95	8934	6375	5577	132202	3074
217	06/29/2023	91	9088	6511	5795	132149	3107
218	06/29/2023	96	8917	6805	5656	132271	3089
219	06/29/2023	98	8779	6430	5712	132210	3081
220	06/29/2023	95	9015	6394	5667	132086	2979
221	06/30/2023	95	9040	6159	5794	133827	3063
222	06/30/2023	99	8705	6722	5842	132105	2966
223	06/30/2023	95	8988	6781	5590	132124	3042
224	07/02/2023	99	8875	6669	5717	132102	3445
225	07/02/2023	94	9100	6218	5708	132116	3055
226	07/02/2023	92	9028	6395	5678	132107	3033
227	07/02/2023	94	9020	6494	5523	132123	3042
228	07/02/2023	81	8929	6675	5627	132148	3076
229	07/02/2023	83	8659	6702	5703	132231	3045
230	07/02/2023	94	8790	6556	5738	132134	3015
231	07/02/2023	97	8692	6269	5482	132133	3014
232	07/03/2023	92	8129	6207	5471	132139	3033

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233	07/03/2023	94	9120	6038	5147	132116	3031
234	07/03/2023	96	9039	6400	5287	132055	3035
235	07/03/2023	94	9063	6015	5357	132108	2981
236	07/03/2023	99	8635	6428	5034	132200	3002
237	07/03/2023	92	8907	6386	5159	132178	2980
238	07/03/2023	100	8377	6321	5155	132136	2998
239	07/03/2023	83	8975	6594	4938	132048	2994
240	07/03/2023	89	8977	6070	5338	132240	3021
241	07/03/2023	95	8568	6385	5089	132141	3035
242	07/03/2023	81	9058	6588	5396	132083	2999
243	07/03/2023	97	8734	6598	5255	132101	3028
244	07/04/2023	93	8882	8170	5686	132160	3005
245	07/04/2023	100	8906	6828	5579	132051	2945
246	07/04/2023	100	8964	6733	6130	132049	3007
247	07/04/2023	92	8779	6667	6004	132125	2904
248	07/04/2023	90	8516	7997	4288	132135	2958

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/9/2023
Job End Date:	7/11/2023
State:	West Virginia
County:	Wetzel
API Number:	47-103-03431-00-00
Operator Name:	EQT Production
Well Name and Number:	BIG464 1H
Latitude:	39.56776370
Longitude:	-80.51652510
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,476
Total Base Water Volume (gal):	35,690,844
Total Base Non Water Volume:	0



## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	EQT	Carrier/Base Fluid	Water	7732-18-5	100.00000	89.53241	None
Sand (Proppant)	EQT	Proppant	Silica Substrate	14808-60-7	100.00000	9.86810	None
SlimSTREAM FR 9800	ChemStream	Friction Reducer	Copolymer of 2-propenamide	Proprietary	30.00000	0.01318	None
15% HCl	Evolution Well Services	Acid	Hydrogen Chloride	7647-01-0	15.00000	0.00962	None
Clearal 268	ChemStream	Biocide	Non-hazardous substances	Proprietary	80.00000	0.00893	None
SlimSTREAM SC-398	ChemStream	Scale Inhibitor	Non-hazardous substances	Proprietary	90.00000	0.00763	None
SlimSTREAM FR 9800	ChemStream	Friction Reducer	Petroleum Distillate	64742-47-8	20.00000	0.00586	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor	Methanol	67-56-1	90.00000	0.00079	None
Clearal 268	ChemStream	Biocide					

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*Handwritten signature*

Ferrplex 66	Evolution	Iron Control	Glutaraldehyde	111-30-8	20.00000	0.00056	None
SlimSTREAM SC-398	ChemStream	Scale Inhibitor	Acetic acid	64-19-7	50.00000	0.00024	None
Ferrplex 66	Evolution	Iron Control	Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT))	34690-00-1	10.00000	0.00009	None
SlimSTREAM FR 9800	ChemStream	Friction Reducer	Citric Acid	000077-92-9	30.00000	0.00009	None
SlimSTREAM FR 9800	ChemStream	Friction Reducer	Oleic Acid Diethanolamide	93-83-4	2.00000	0.00006	None
SlimSTREAM FR 9800	ChemStream	Friction Reducer	Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00006	None
Clearal 268	ChemStream	Biocide	Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00002	None
Clearal 268	ChemStream	Biocide	Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00001	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor	Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00001	None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Alcohols, C14-C15, ethoxylated	68951-67-7	7.00000	0.00001	None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Methanol	67-56-1	25.00000	0.00000	None
Clearal 268	ChemStream	Biocide	Pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	68909-18-2	25.00000	0.00000	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor	Ethanol	64-17-5	1.50000	0.00000	None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Propargyl alcohol	107-19-7	5.00000	0.00000	None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Ethoxylated Alcohols	Proprietary	15.00000	0.00000	None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Ethanoic Acid	64-19-7	15.00000	0.00000	None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Proprietary	Proprietary	10.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Proprietary	Proprietary	10.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	2-ethylhexanol	104-76-7	5.00000		None

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EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Ethoxylated Nonylphenols	127087-87-0	5.00000	None
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Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Via Federal Express

December 14, 2023

State of West Virginia  
Department of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304

**RE:** SWN Production Company, LLC  
Operator ID: 494512924  
Regulatory Filings: WR-34 & WR-35

To Whom It May Concern:

Please find enclosed form WR-34 Discharge Monitoring Report and WR-35 Operator's Report of Well Work along with supporting documentation, for the wells listed below:

API	Well Name
47-009-00336	SAMUEL JONES BRK 8H
47-009-00337	SAMUEL JONES BRK 10H
47-103-03575	WILLIAM RITCHEA WTZ 210H
47-103-03578	WILLIAM RITCHEA WTZ 405H
47-103-03576	WILLIAM RITCHEA WTZ 410H

If you have any questions or require additional information, please contact me via email at [denise\\_grantham@swn.com](mailto:denise_grantham@swn.com) or telephone at (281) 620-9610.

Sincerely,

*Denise Grantham*

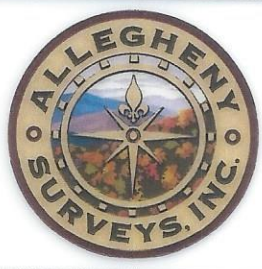
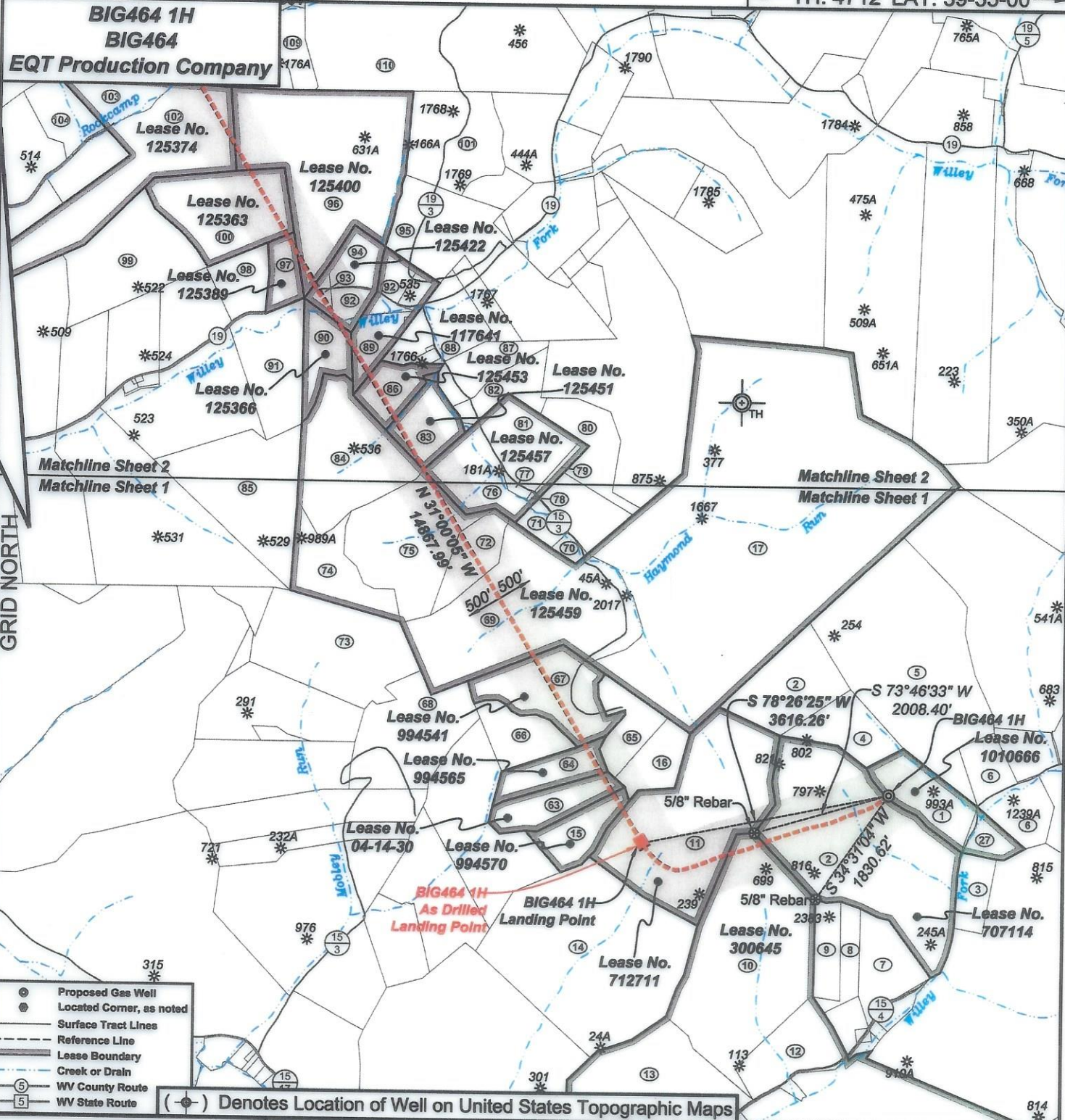
Denise Grantham  
Regulatory Analyst  
SW Appalachia Division

/dg  
Encl.

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TH: 4712' LAT: 39-35-00

TH: 5702' LON: 80-30-00



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: 125-16  
 DRAWING NO: BIG464 1H  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

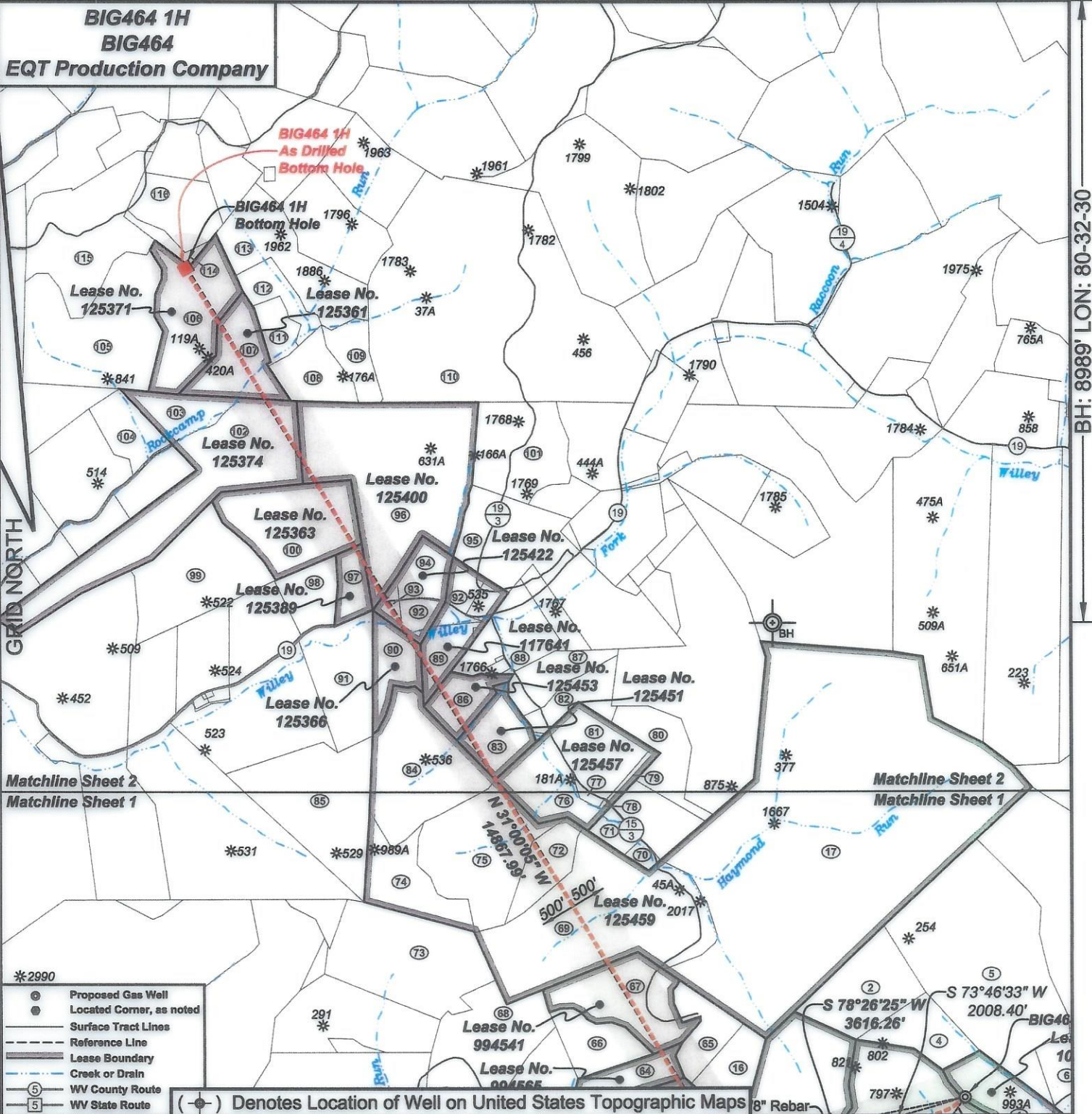
**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: April 22 20 22  
 OPERATOR'S WELL NO.: BIG464 1H  
 API WELL NO  
 47 - 103 - 03431  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: 1246.8' WATERSHED Wiley Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: EQT Production Company ACREAGE: 25.25  
 ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
 Canonsburg, PA 15317 Bridgeport, WV 26330

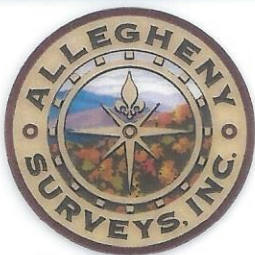
03/01/2024



BH: 8989' LON: 80-32-30

- \*2990
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- ▬ Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑤ WV State Route

(○) Denotes Location of Well on United States Topographic Maps 8" Rebar



*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: 125-16  
DRAWING NO: BIG464 1H  
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**

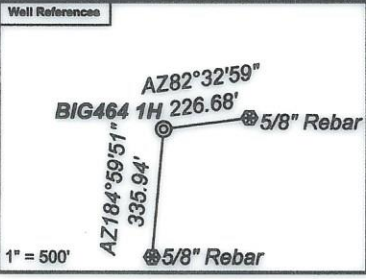


DATE: April 22 20 22  
OPERATOR'S WELL NO.: BIG464 1H  
API WELL NO  
47 - 103 - 03431  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1246.8' WATERSHED Wiley Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: EQT Production Company ACREAGE: 2.25  
ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'  
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
Canonsburg, PA 15317 Bridgeport, WV 26330

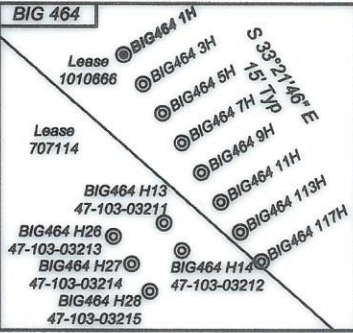
03/01/2024

**BIG464 1H**  
**BIG464**  
**EQT Production Company**

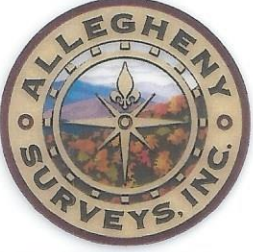
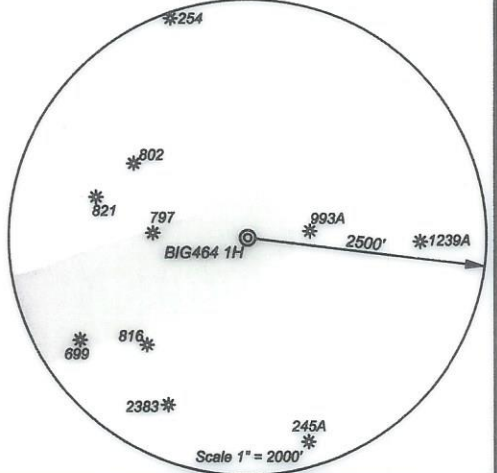


**As Drilled Well Information:**  
BIG464 1H coordinates are  
NAD 27 N: 390,493.54 E: 1,713,381.48  
NAD 83 UTM N: 4,379,896.63 E: 541,528.39  
BIG464 1H Kick Out Point coordinates are  
NAD 27 N: 390,493.36 E: 1,713,382.85  
NAD 83 UTM N: 4,379,896.58 E: 541,528.81  
BIG464 1H Landing Point coordinates are  
NAD 27 N: 389,789.74 E: 1,709,822.82  
NAD 83 UTM N: 4,379,664.08 E: 540,447.76  
BIG464 1H Bottom Hole coordinates are  
NAD 27 N: 402,501.04 E: 1,702,167.42  
NAD 83 UTM N: 4,383,497.75 E: 538,050.93  
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.

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	14	34	Wetzel	Grant	EQT Production Company	25.25
2	20	1	Wetzel	Grant	Coastal Forest Resources Company	520.00
3	15	27	Wetzel	Grant	Beverly Lynn Barr Life Estate	10.00
4	14	27	Wetzel	Grant	EQT Production Company	22.00
5	14	20	Wetzel	Grant	EQT Production Company	128.50
6	15	18	Wetzel	Grant	Donald J. D'Lusky	25.00
7	14	45	Wetzel	Grant	Coastal Forest Resources Company	11.08
8	14	44	Wetzel	Grant	Mabel F. Barr	11.00
9	14	43	Wetzel	Grant	Mabel F. Barr	11.01
10	14	42	Wetzel	Grant	Donald J. D'Lusky	111.00
11	14	33	Wetzel	Grant	Allie H. & Hilda B. Conaway	108.00
12	19	9	Wetzel	Grant	Donald J. D'Lusky	26.18
13	19	8	Wetzel	Grant	Donald J. D'Lusky, Jr.	71.50
14	14	40	Wetzel	Grant	Donald J. D'Lusky, Jr.	131.00
15	14	31	Wetzel	Grant	Donald J. D'Lusky, Jr.	19.00
16	14	32	Wetzel	Grant	Mary Jane Byard	13.30
17	14	6	Wetzel	Grant	Coastal Forest Resources Company	332.90
27			Wetzel	Grant	No Tax Map & Parcel Information	
63	14	30	Wetzel	Grant	Equitrans LP	20.50
64	14	29	Wetzel	Grant	ET Blue Gress, LLC	17.00
65	14	28	Wetzel	Grant	Mary Jane Byard	14.50
66	14	24	Wetzel	Grant	Equitrans LP	19.20
67	14	25	Wetzel	Grant	ET Blue Gress, LLC	35.88
68	14	23	Wetzel	Grant	Equitrans LP	51.00
69	14	19	Wetzel	Grant	Coastal Forest Resources Company	138.69
70	14	13	Wetzel	Grant	Coastal Forest Resources Company	2.80
71	14	14	Wetzel	Grant	Gary L. Elaw	21.40
72	14	19.1	Wetzel	Grant	Thomas J. Parks, et al.	18.82
73	14	18	Wetzel	Grant	John W. Wyoff	96.70
74	14	10	Wetzel	Grant	John W. Wyoff	29.00
75	14	11	Wetzel	Grant	Thomas J. Parks, et al.	54.44
76	14	12	Wetzel	Grant	Thomas J. Parks, et al.	16.00
77	14	3.1	Wetzel	Grant	Ronald L. & Anna P. Elaw	1.45
78	14	11.1	Wetzel	Grant	James W. & Mary E. Yost	0.38
79	14	4	Wetzel	Grant	Thelma C. Willey	3.00
80	14	5	Wetzel	Grant	Dale K. & Sherry Dulesay	21.50
81	14	3	Wetzel	Grant	Thelma C. Willey	34.55
82	9	60	Wetzel	Grant	Jeffery Willey Life Estate	16.50
83	14	1	Wetzel	Grant	Leonard E. & Edwin C. Rice	21.85
84	14	9	Wetzel	Grant	Leonard E. & Edwin C. Rice	55.00
85	14	8	Wetzel	Grant	Eather R. Coen	59.50
86	9	58	Wetzel	Grant	Leonard E. & Edwin C. Rice	16.50
87	9	59.1	Wetzel	Grant	Clyde R. & Connie L. Fordyce	16.70
88	9	48	Wetzel	Grant	Donald Allen Kennedy	25.80
89	9	45	Wetzel	Grant	Dewayne & Patricia L. Morris	19.65
90	9	55	Wetzel	Grant	Jack L. & Leanna C. Barmette	18.40
91	9	54	Wetzel	Grant	Jack L. & Leanna C. Barmette	17.40
92	9	43	Wetzel	Grant	Norman R. & Vivian L. Derby	14.40
93	9	42	Wetzel	Grant	Jack L. & Leanna C. Barmette	2.69
94	9	44	Wetzel	Grant	Billy L. & Barbara L. Brewer	12.55
95	9	30	Wetzel	Grant	John D. Parks, et al.	73.96
96	9	23	Wetzel	Grant	Stephen B. & Carolyn M. Gantz	119.00
97	9	41	Wetzel	Grant	William Schleicher	11.58
98	9	53	Wetzel	Grant	Norman R. & Vivian L. Derby	32.80
99	9	28	Wetzel	Grant	Sherilyn Snider	55.62
100	9	29	Wetzel	Grant	William & Margaret Schleicher	47.90
101	9	24	Wetzel	Grant	John D. Parks, et al.	40.00
102	8	32	Wetzel	Grant	Joe Willis Pigg Heirs	82.40
103	9	22	Wetzel	Grant	James A. Yoho	17.80
104	8	29	Wetzel	Grant	Mary J. & Hugh D. Byard Heirs	15.00
105	8	15	Wetzel	Grant	John Michael Byard	71.90
106	9	63	Wetzel	Grant	Mary Wright, et al.	46.00
107	9	13	Wetzel	Grant	James A. Yoho	27.00
108	9	17	Wetzel	Grant	Wanda K. Willey	20.08
109	9	16	Wetzel	Grant	W. K. Willey Estate	13.40
110	9	10	Wetzel	Grant	William B. & Pamela Franck	233.37
111	9	15	Wetzel	Grant	Opel Stoneking Estate	8.82
112	9	9	Wetzel	Grant	Loesie Watson	11.30
113	9	8	Wetzel	Grant	James A. Yoho	45.08
114	8	63	Wetzel	Grant	Mary Wright, et al.	4.25
115	8	8	Wetzel	Grant	Wendie L. Byard	58.16
116	8	9	Wetzel	Grant	Mary Wright, et al.	24.00



Lease No.	Owner	Acres
707114	Ridgetop Royalties, LLC, et al.	78
300645	Carman Lee Allen, et al.	858
994570	John William Killoyne, Jr., et al.	19
04-14-30	Scott Carter, acting as Executor of the Estate of Shirley Gay Carter a/k/a Shirley G. Cater, deceased	20.50
712711	Barbara Lynne Metheny, et al.	108
994565	Darla Schroeder, et al.	17
994541	Dan Coleman, et al.	35.88
125459	Randel J. Hartman, et al.	693
125457	Kenneth M. Waymen, et al.	55
125451	Lavena Jane Higginbotham	23
125453	Bounty Minerals, LLC	17
117641	Frank W. Watson, Jr., et al.	30
125366	OXY USA Inc., et al.	18
125422	Ridgetop Appalachia, LLC, et al.	23
125400	Robert Barry Myers, Jr., et al.	119
125389	Stone Hill Minerals Holdings, LLC	12
125363	Stone Hill Minerals Holdings, LLC	48
125374	Teresa J. Pigg, et al.	100
125361	Three Rivers Royalty II, LLC, et al.	27
125371	Thomas O. Kiger, et al.	46



*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.*

*[Signature]*  
P.S. 2092



SEAL

FILE NO: 125-16  
DRAWING NO: BIG464 1H  
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: April 22 20 22  
OPERATOR'S WELL NO.: BIG464 1H  
API WELL NO  
47 - 103 - 03431  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: 1246.8' WATERSHED Wiley Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: EQT Production Company ACREAGE: 25.25  
ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE NO: 1010666 ACREAGE: 32  
PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7,394'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow  
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280  
Canonsburg, PA 15317 Bridgeport, WV 26330

03/01/2024