

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

API 47-103-03437 County Wetzel District Grant
Quad Big Run Pad Name BIG464 Field/Pool Name N/A
Farm name EQT Production Company Well Number BIG464 113H (L004012)
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 4,379,873.98 Easting 541,543.85
Landing Point of Curve Northing 4,380,156.05 Easting 542,301.81
Bottom Hole Northing 4,384,589.19 Easting 539,532.03

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 01/27/2022 Date drilling commenced 09/27/2021 Date drilling ceased 05/20/2022
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

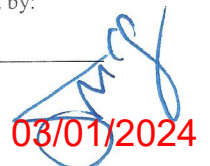
Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 96,175,239,419 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1711,1835 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 543,782,878,904 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

Reviewed by:


03/01/2024

API 47- 103 - 03437 Farm name EQT Production Company Well number BIG464 113H (L004012)

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"	1012'	NEW	J-55 54.5#	843'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2433'	NEW	J-55 36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	6"	25,700'	NEW	P-110 24#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 1038' 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 ³ /sks)	Volume (ft ³)	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	83	15.6	1.18	98	0	8+
Surface	CLASS A	930	16.0	1.13	1051	0	8
Coal							
Intermediate 1	CLASS A	865	15.6	1.18	1020	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4877	15.2	1.04	5072	1038'	8+
Tubing							

Drillers TD (ft) 25,722' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 1,099'

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 1968'

RECEIVED
Office of Oil and Gas

NOV 13 2023

WV Department of Environmental Protection

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____


03/01/2024

API 47- 103 - 03437 Farm name EQT Production Company Well number BIG464 113H (L004012)

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

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection


03/01/2024

Well # BIG464 113H (L004012) Final Formations API# 47-103-03437				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	543	543
Waynesburg Coal	543	543	546	546
Sand/Shale	546	546	782	782
Mapleton Coal	782	782	784	784
Sand/Shale	784	784	878	878
Sewickley Coal	878	878	880	880
Sand/Shale	880	880	904	904
Pittsburgh Coal	904	904	910	910
Sand/Shale	910	910	1,793	1,793
Maxton	1,793	1,793	1,972	1,972
Sand/Shale	1,972	1,972	2,235	2,235
Big Lime	2,235	2,235	2,311	2,311
Sand/Shale	2,311	2,311	2,323	2,323
Big Injun	2,323	2,323	2,392	2,392
Sand/Shale	2,392	2,392	2,521	2,521
Weir	2,521	2,521	2,671	2,671
Sand/Shale	2,671	2,671	2,736	2,736
Gantz	2,736	2,736	2,772	2,772
Sand/Shale	2,772	2,772	2,877	2,877
Fifty foot	2,877	2,877	2,933	2,933
Sand/Shale	2,933	2,933	2,972	2,972
Thirty foot	2,972	2,972	2,999	2,999
Sand/Shale	2,999	2,999	3,028	3,028
Gordon	3,028	3,028	3,073	3,073
Sand/Shale	3,073	3,073	3,098	3,098
Forth Sand	3,098	3,098	3,111	3,111
Sand/Shale	3,111	3,111	3,170	3,170
Fifth Sand	3,170	3,170	3,189	3,189
Sand/Shale	3,189	3,189	3,223	3,222
Bayard	3,223	3,222	3,241	3,239
Sand/Shale	3,241	3,239	3,646	3,614
Warren	3,646	3,614	3,670	3,636
Sand/Shale	3,670	3,636	3,766	3,720
Speechley	3,766	3,720	3,814	3,761
Sand/Shale	3,814	3,761	4,124	4,018
Balltown A	4,124	4,018	4,139	4,030
Sand/Shale	4,139	4,030	4,609	4,421
Riley	4,609	4,421	4,651	4,457
Sand/Shale	4,651	4,457	5,238	4,950
Benson	5,238	4,950	5,287	4,989
Sand/Shale	5,287	4,989	5,652	5,285
Alexander	5,652	5,285	5,719	5,340
Elks	5,719	5,340	7,503	6,830
Sonyea	7,503	6,830	7,721	7,015
Middlesex	7,721	7,015	7,957	7,202

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

03/01/2024

Genesee	7,957	7,202	8,107	7,301
Geneseo	8,107	7,301	8,154	7,328
Tully	8,154	7,328	8,197	7,351
Hamilton	8,197	7,351	8,466	7,443
Marcellus	8,466	7,443	25,722	7,462

RECEIVED
Office of Oil and Gas

NOV 13 2023

WV Department of
Environmental Protection

03/01/2024

Perforation Data

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

03/01/2024

Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
2	04/30/2023	25638	25505	28	Marcellus
3	05/01/2023	25486	25324	36	Marcellus
4	05/01/2023	25305	25142	36	Marcellus
5	05/02/2023	25123	24961	36	Marcellus
6	05/02/2023	24942	24761	40	Marcellus
7	05/02/2023	24742	24561	40	Marcellus
8	05/03/2023	24542	24361	40	Marcellus
9	05/03/2023	24342	24161	40	Marcellus
10	05/03/2023	24142	23961	40	Marcellus
13	05/04/2023	23542	23361	40	Marcellus
14	05/07/2023	23342	23161	40	Marcellus
15	05/07/2023	23142	22961	40	Marcellus
16	05/08/2023	22942	22761	40	Marcellus
17	05/08/2023	22742	22561	40	Marcellus
18	05/08/2023	22542	22361	40	Marcellus
19	05/09/2023	22342	22161	40	Marcellus
20	05/09/2023	22142	21961	40	Marcellus
21	05/10/2023	21942	21761	40	Marcellus
22	05/10/2023	21742	21561	40	Marcellus
23	05/10/2023	21542	21361	40	Marcellus
24	05/10/2023	21342	21161	40	Marcellus
25	05/11/2023	21142	20961	40	Marcellus
26	05/11/2023	20942	20761	40	Marcellus
27	05/12/2023	20742	20561	40	Marcellus
28	05/12/2023	20542	20360	40	Marcellus
29	05/12/2023	20341	20159	40	Marcellus
30	05/12/2023	20140	19958	40	Marcellus
31	05/13/2023	19939	19757	40	Marcellus
32	05/15/2023	19738	19556	40	Marcellus
33	05/15/2023	19537	19355	40	Marcellus
34	05/15/2023	19336	19154	40	Marcellus
35	05/15/2023	19135	18953	40	Marcellus
36	05/16/2023	18934	18752	40	Marcellus
37	05/16/2023	18733	18551	40	Marcellus
38	05/16/2023	18532	18350	40	Marcellus
39	05/17/2023	18331	18149	40	Marcellus
40	05/17/2023	18130	17948	40	Marcellus
41	05/17/2023	17929	17747	40	Marcellus
42	05/18/2023	17728	17546	40	Marcellus
43	05/19/2023	17527	17345	40	Marcellus
44	05/19/2023	17326	17144	40	Marcellus
45	05/19/2023	17125	16943	40	Marcellus
46	05/20/2023	16924	16742	40	Marcellus

47	05/20/2023	16723	16541	40	Marcellus
48	05/20/2023	16522	16340	40	Marcellus
49	05/21/2023	16321	16139	40	Marcellus
50	05/21/2023	16120	15938	40	Marcellus
51	05/22/2023	15919	15737	40	Marcellus
52	05/22/2023	15718	15536	40	Marcellus
53	05/22/2023	15517	15335	40	Marcellus
54	05/23/2023	15316	15134	40	Marcellus
55	05/23/2023	15115	14933	40	Marcellus
56	05/24/2023	14914	14732	40	Marcellus
57	05/25/2023	14713	14531	40	Marcellus
58	05/26/2023	14512	14330	40	Marcellus
59	05/27/2023	14311	14129	40	Marcellus
60	05/28/2023	14110	13928	40	Marcellus
61	05/28/2023	13909	13727	40	Marcellus
62	05/29/2023	13708	13526	40	Marcellus
63	05/30/2023	13507	13325	40	Marcellus
64	05/30/2023	13306	13124	40	Marcellus
65	05/30/2023	13105	12923	40	Marcellus
66	05/31/2023	12904	12722	40	Marcellus
67	06/01/2023	12703	12521	40	Marcellus
68	06/01/2023	12502	12320	40	Marcellus
69	06/02/2023	12301	12119	40	Marcellus
70	06/03/2023	12100	11918	40	Marcellus
71	06/04/2023	11899	11717	40	Marcellus
72	06/05/2023	11698	11516	40	Marcellus
73	06/09/2023	11497	11315	40	Marcellus
74	06/11/2023	11296	11114	40	Marcellus
75	06/11/2023	11095	10913	40	Marcellus
76	06/13/2023	10894	10712	40	Marcellus
77	06/13/2023	10693	10511	40	Marcellus
78	06/14/2023	10492	10310	40	Marcellus
79	06/14/2023	10291	10109	40	Marcellus
80	06/15/2023	10090	9908	40	Marcellus
81	06/15/2023	9889	9707	40	Marcellus
82	06/15/2023	9688	9506	40	Marcellus
83	06/15/2023	9487	9305	40	Marcellus
84	06/15/2023	9286	9104	40	Marcellus
85	06/16/2023	9085	8903	40	Marcellus
86	06/16/2023	8884	8702	40	Marcellus
87	06/16/2023	8683	8501	40	Marcellus

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

Stimulation Data

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

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	83	9167	7529	4543	176021	4509.00	
2	05/01/2023	95	9240	6856	5116	308111	7501.00	
3	05/02/2023	100	9225	5946	5224	396017	10421.00	
4	05/02/2023	100	9178	6555	5819	396011	9409.00	
5	05/02/2023	100	9315	5878	6199	396058	9492.00	
6	05/02/2023	100	9450	6660	5291	440091	10352.00	
7	05/03/2023	99	9079	5688	5205	440293	10284.00	
8	05/03/2023	100	9373	5852	6018	440112	10267.00	
9	05/03/2023	101	9289	6502	6343	440062	10346.00	
10	05/04/2023	100	9227	6752	4778	440244	10281.87	
11	05/04/2023	100	9176	5795	5596	440111	10257.00	
12	05/04/2023	99	9412	6133	5366	440124	10242.00	
13	05/05/2023	100	9223	6122	5482	440120	10219.00	
14	05/07/2023	100	9200	6173	5978	440123	10341.00	
15	05/08/2023	100	9114	5898	5445	440068	10285.00	
16	05/08/2023	100	8971	5859	5762	440138	10268.00	
17	05/08/2023	100	9277	6759	5301	440081	10120.00	
18	05/09/2023	100	9182	6398	5848	440162	10269.00	
19	05/09/2023	100	8945	6102	5439	440244	10129.00	
20	05/10/2023	100	9151	6497	5573	440097	10180.00	
21	05/10/2023	100	9077	6162	5460	440299	10109.00	
22	05/10/2023	100	9224	6122	5624	440256	10165.00	
23	05/10/2023	100	9228	6497	5832	440099	10239.00	
24	05/11/2023	100	8970	5957	5504	440059	10093.00	
25	05/11/2023	99	9236	6381	5402	440536	10207.00	
26	05/12/2023	100	9118	6492	5527	440491	10210.00	
27	05/12/2023	99	9100	5870	4992	440190	10248.00	
28	05/12/2023	98	9241	6365	5267	440140	10227.00	
29	05/13/2023	86	9241	6140	5345	440383	10322.00	
30	05/13/2023	99	9132	6047	4695	440182	10247.00	
31	05/15/2023	99	9099	6150	5790	440461	10137.00	
32	05/15/2023	99	9181	5959	4895	440139	10111.00	
33	05/15/2023	99	9199	5796	4975	440140	10148.00	
34	05/15/2023	98	8982	6478	4789	440455	10210.00	
35	05/16/2023	100	8904	6146	5172	440458	10167.00	
36	05/16/2023	100	9154	6090	5598	440147	10091.00	
37	05/16/2023	100	9197	6499	5013	440150	10125.00	
38	05/17/2023	99	8997	5726	4937	440182	10018.00	
39	05/17/2023	100	9120	6302	5623	440134	10060.00	
40	05/18/2023	100	8746	6118	5498	440344	10130.00	
41	05/18/2023	100	9178	6329	5669	440276	10064.00	
42	05/19/2023	100	9077	6498	5801	440206	10139.00	
43	05/19/2023	100	9054	6326	5824	440224	10127.00	

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

03/01/2024

44	05/19/2023	96	8916	6395	6273	440427	10160.00
45	05/20/2023	100	9031	6432	5580	440189	10034.00
46	05/20/2023	100	9134	5837	5717	440235	9985.00
47	05/20/2023	99	9137	6264	5524	440208	10044.00
48	05/21/2023	99	8628	6183	5980	440370	9956.00
49	05/21/2023	100	9178	5000	5317	440143	9835.00
50	05/22/2023	98	8962	6821	5810	440008	10061.00
51	05/22/2023	100	9032	6907	5441	440147	10070.00
52	05/22/2023	96	8980	6463	4935	440387	10097.00
53	05/23/2023	100	8755	5677	6218	440472	9970.00
54	05/23/2023	100	9069	5934	5004	440155	10002.00
55	05/24/2023	100	8933	6339	4961	440183	10065.00
56	05/25/2023	99	9027	6178	5053	440244	9893.00
57	05/26/2023	100	8898	6359	5587	440240	10024.00
58	05/27/2023	100	9016	7061	6060	440034	9883.00
59	05/28/2023	100	9114	6834	5759	440066	10052.00
60	05/28/2023	100	8896	5880	6254	440014	9790.00
61	05/29/2023	100	8751	6499	5940	440068	10033.00
62	05/30/2023	100	8767	6039	6088	440096	9992.00
63	05/30/2023	100	8832	6676	5738	440070	9849.00
64	05/31/2023	100	8762	6339	5277	440110	9932.00
65	05/31/2023	101	8685	6794	5442	440103	9883.00
66	06/01/2023	100	8687	6789	6084	440235	9849.00
67	06/01/2023	100	8474	6258	6243	440143	9996.00
68	06/02/2023	100	8907	6679	5744	440111	9898.00
69	06/03/2023	100	8650	6721	5838	440084	9788.00
70	06/04/2023	98	8609	7063	6169	440171	9822.00
71	06/05/2023	101	8495	6630	5730	440144	10003.00
72	06/05/2023	97	8400	6272	5558	440188	9862.00
73	06/11/2023	100	8605	6416	5622	440403	9969.00
74	06/11/2023	99	8426	6074	5917	440140	9851.00
75	06/13/2023	100	8360	6616	5605	440181	9927.00
76	06/14/2023	99	8410	6935	6024	440668	10073.00
77	06/15/2023	100	8241	7220	6311	440398	9835.00
78	06/15/2023	100	8197	7047	6131	440424	9806.00
79	06/15/2023	100	8169	6687	6065	440379	9826.00
80	06/15/2023	100	8334	6788	6521	440182	9840.00
81	06/15/2023	100	8358	6605	6437	440888	9662.00
82	06/15/2023	100	8125	7440	6241	440445	9847.00
83	06/16/2023	100	8133	7198	5991	440425	9817.00
84	06/16/2023	100	8126	6953	6118	440364	9851.00
85	06/16/2023	100	8130	6766	5965	440135	9843.00
86	06/16/2023	100	8063	6916	6119	440528	9726.00
87	06/17/2023	99	8212	6854	5789	440498	9839.00

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of
Environmental Protection

03/01/2024

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:	47-103-03437-00-00
Operator Name:	EQT Production
Well Name and Number:	BIG464 113H
Latitude:	39.56755890
Longitude:	-80.51634670
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,491
Total Base Water Volume (gal):	36,342,888
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	88.76178	None
Sand (Proppant)	EQT	Proppant	Silica Substrate	14808-60-7	100.00000	11.05459	None
Clearal 268	ChemStream	Biocide	Non-hazardous substances	Proprietary	80.00000	0.00900	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor	Non-hazardous substances	Proprietary	90.00000	0.00765	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Copolymer of 2-propenamide	Proprietary	30.00000	0.00673	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Petroleum Distillate	64742-47-8	20.00000	0.00299	None
Clearal 268	ChemStream	Biocide	Hydrogen Chloride	7647-01-0	15.00000	0.00191	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor	Glutaraldehyde	111-30-8	20.00000	0.00056	None

StimSTREAM SC-398	ChemStream	Scale Inhibitor	Methanol	67-56-1	90.00000	0.00020	None
Ferriplex 66	Evolution	Iron Control	Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid))(BHMT)	34690-00-1	10.00000	0.00000	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Acetic acid	64-19-7	50.00000	0.00000	None
Ferriplex 66	Evolution	Iron Control	Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00000	None
Clearal 268	ChemStream	Biocide	Oleic Acid Diethanolamide	93-83-4	2.00000	0.00000	None
Clearal 268	ChemStream	Biocide	Citric Acid	000077-92-9	30.00000	0.00000	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00000	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor	Quaternary Ammonium Compounds	88424-85-1	3.00000	0.00000	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor	Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00000	None
EZ-A 431	Tarquin-Coolpro LLC	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	Alcohols, C14-C15, ethoxylated	68951-67-7	7.00000	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	Ethoxylated Alcohols	Proprietary	15.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Proprietary	Proprietary	10.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Ethanoic Acid	64-19-7	15.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Methanol	67-56-1	25.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Ethoxylated Nonyphenols	127087-87-0	5.00000		None
EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	2-ethylhexanol	104-76-7	5.00000		None

EZ-A 431	Tarquin-Coolpro LLC	Acid Corrosion Inhibitor	Pyridinium, 1-(phenylmethyl)-, ethyl methyl derivs., chlorides	68909-18-2	25.00000	None
----------	---------------------	--------------------------	--	------------	----------	------

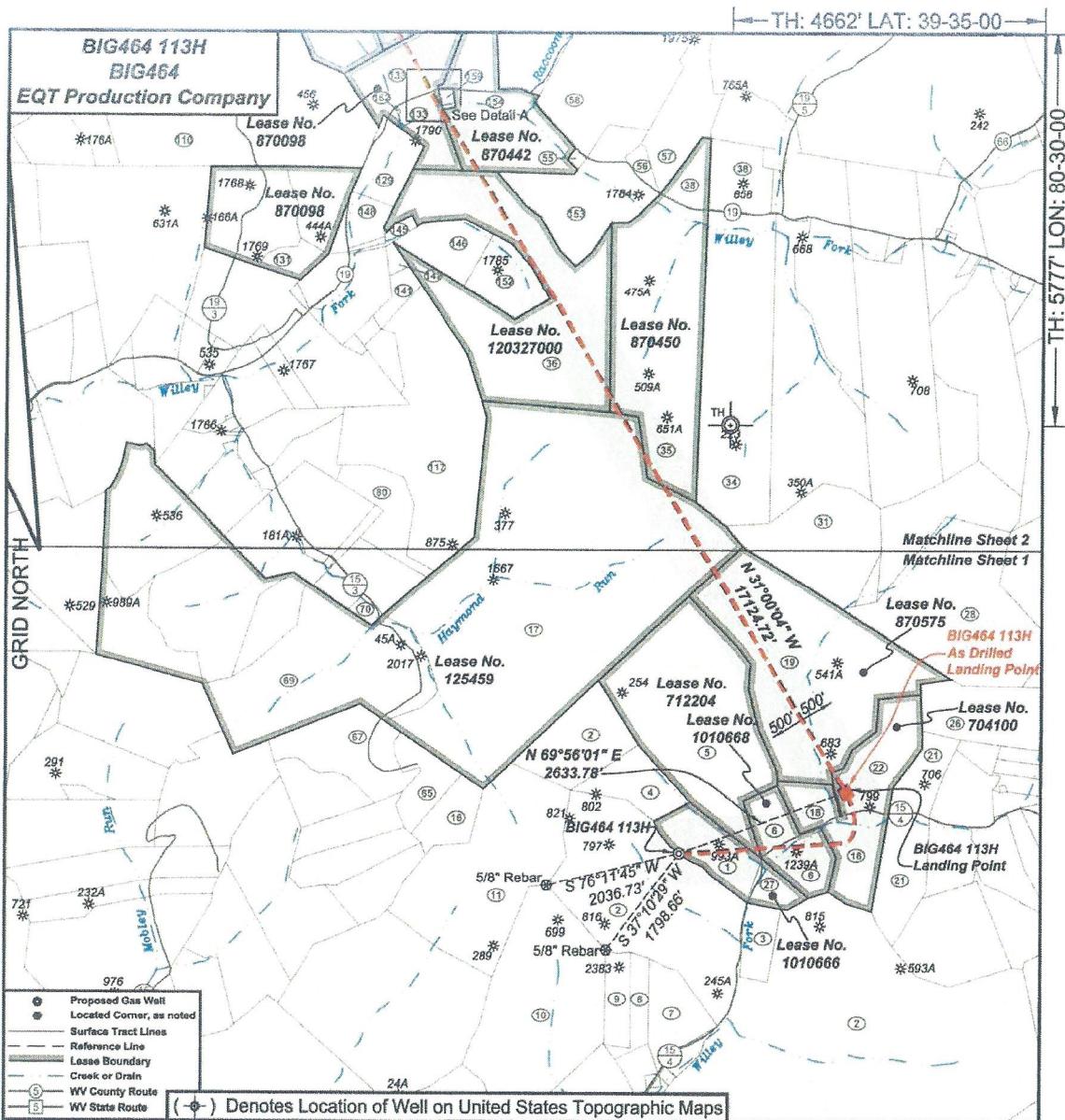
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* 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)

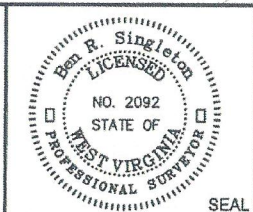
RECEIVED
 Office of Oil and Gas
 NOV 13 2023
 WV Department of
 Environmental Protection

03/01/2024



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 113H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

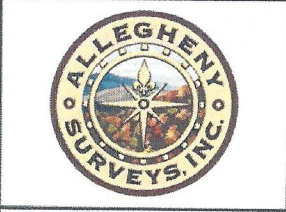
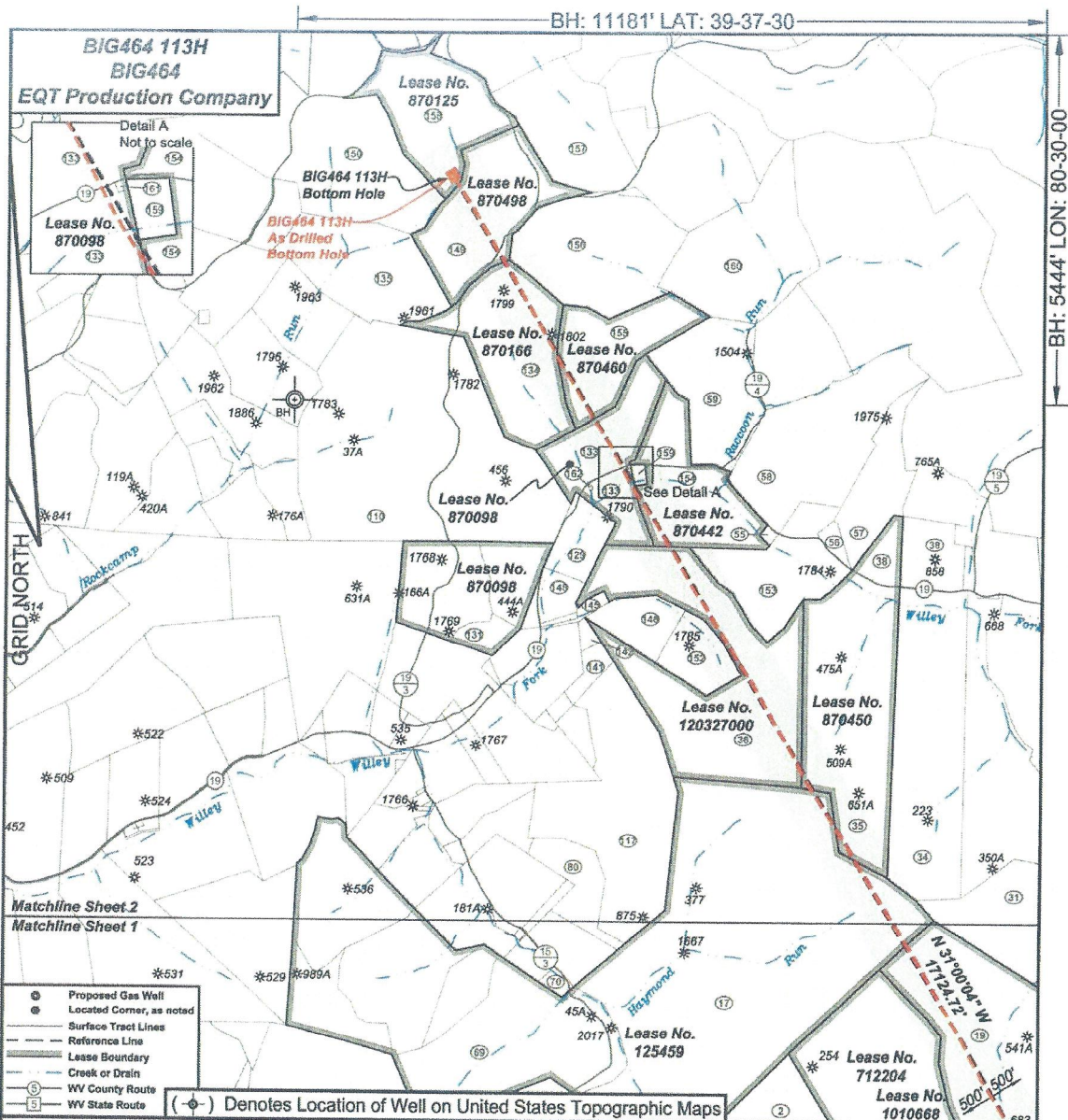
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: June 14 20 22
OPERATOR'S WELL NO.: BIG464 113H
API WELL NO
47 - 103 - 03437
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1246.8' WATERSHED: Willey 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

RECEIVED
Office of Oil and Gas
NOV 13 2023
WV Department of Environmental Protection

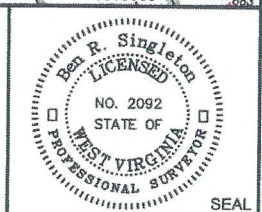
03/01/2024



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 113H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORNS Station

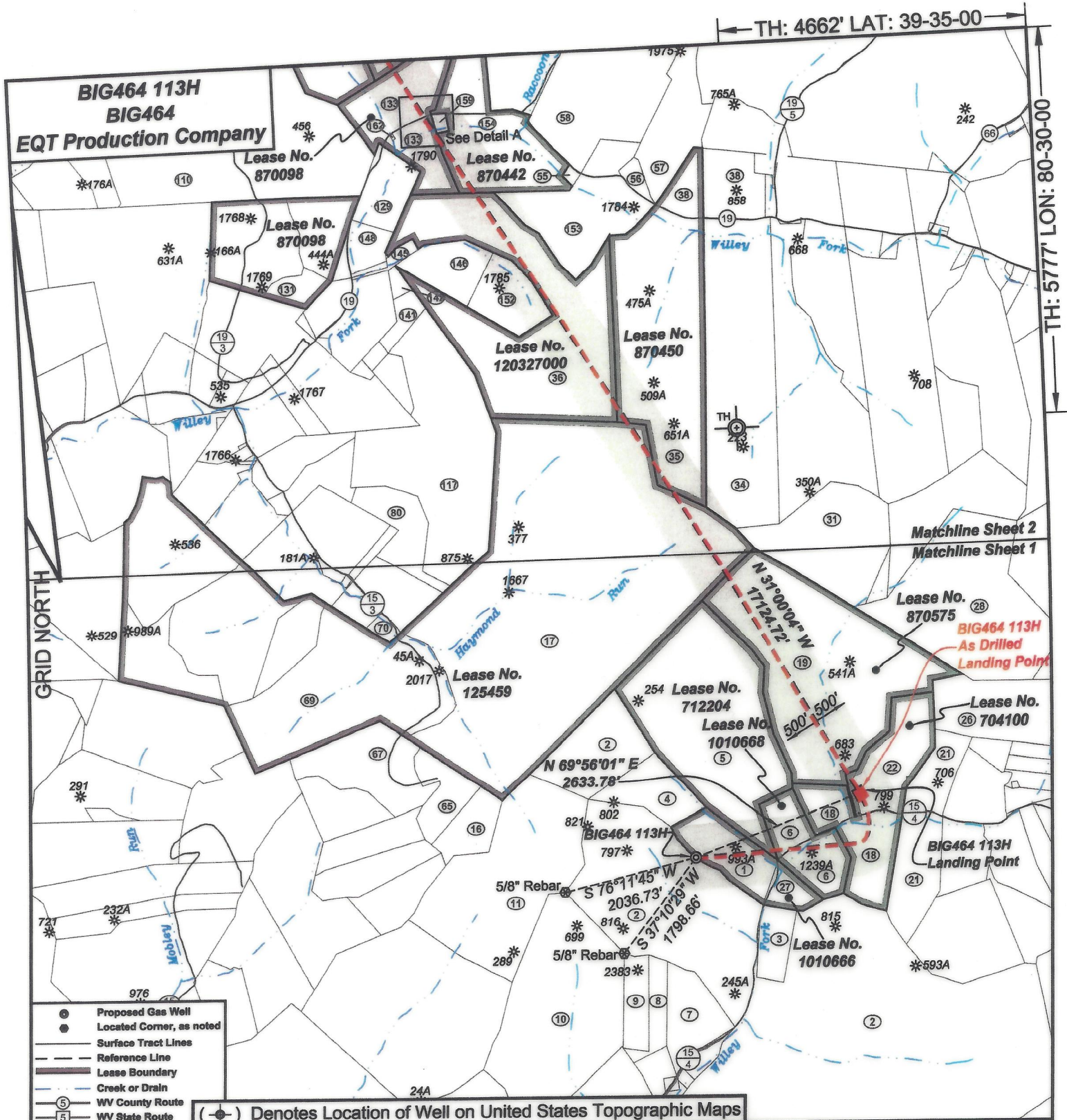
STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: June 14 20 22
 OPERATOR'S WELL NO.: BIG464 113H
 API WELL NO
 47 - 103 - 03437
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1246.8' WATERSHED: Willey 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

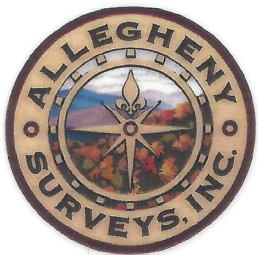
RECEIVED
 Office of Oil and Gas
 NOV 13 2023
 WV Department of
 Environmental Protection

03/01/2024



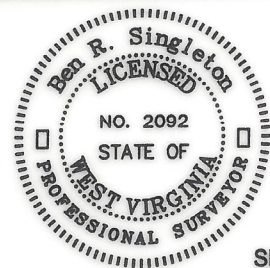
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- ▬ Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑤ WV State Route

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



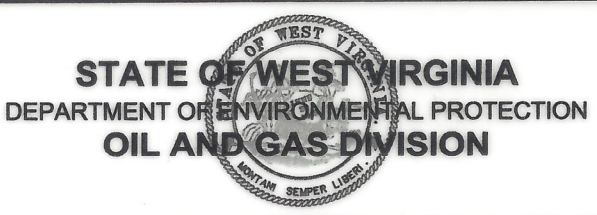
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

Ben R. Singleton
P.S. 2092



SEAL

FILE NO: 125-16
DRAWING NO: BIG464 113H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: June 14 20 22
OPERATOR'S WELL NO.: BIG464 113H
API WELL NO
47 - 103 - 03437
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'

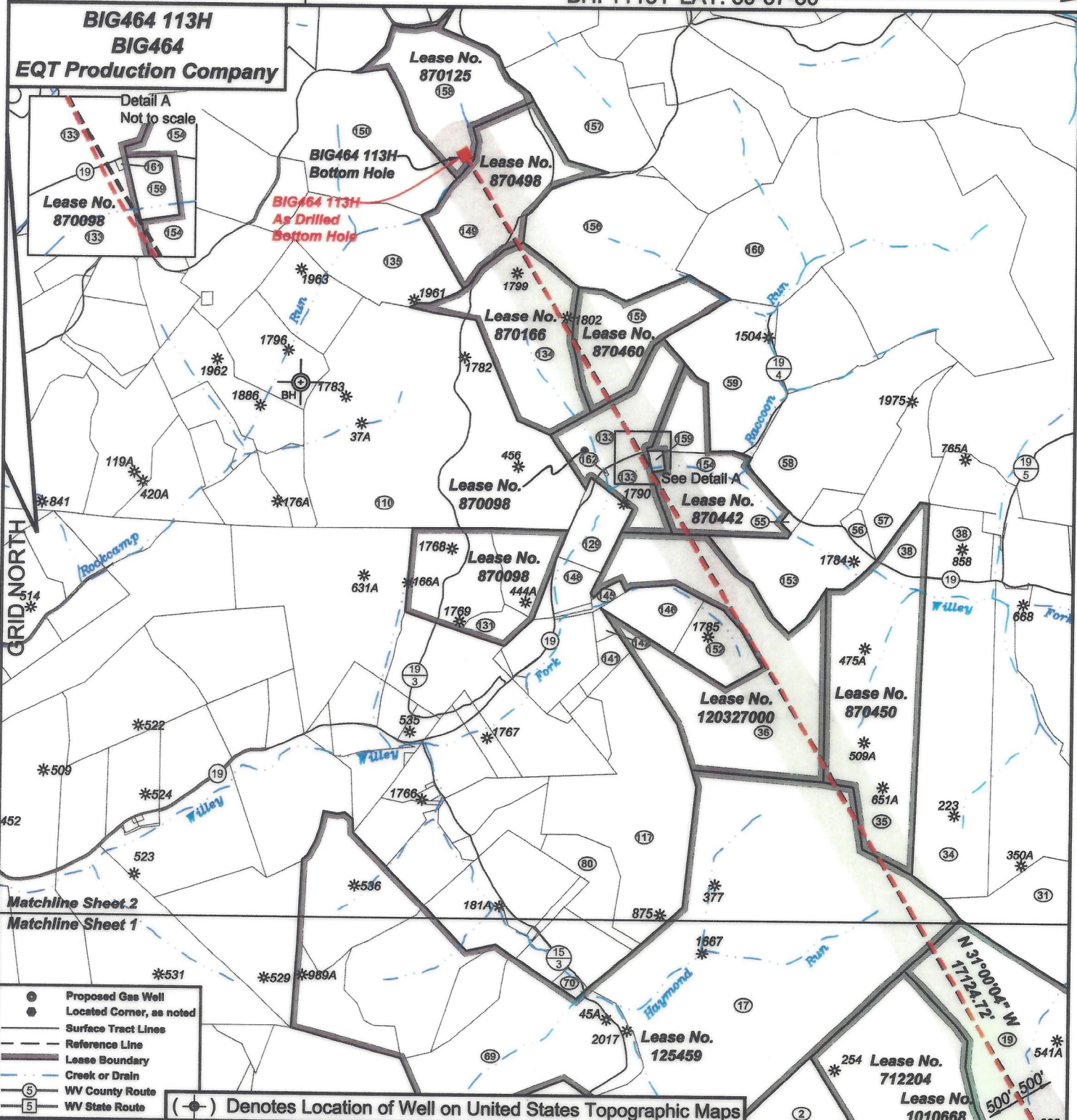
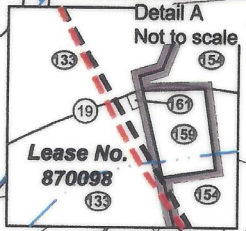
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 26330

03/01/2024

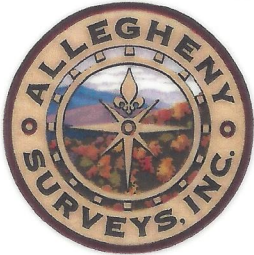
BH: 11181' LAT: 39-37-30

BH: 5444' LON: 80-30-00

BIG464 113H
BIG464
EQT Production Company

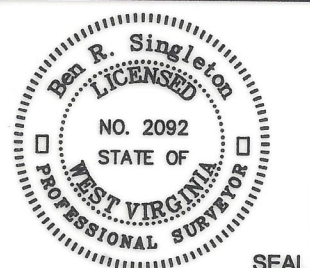


- Proposed Gas Well
 - Located Corner, as noted
 - Surface Tract Lines
 - Reference Line
 - Lease Boundary
 - Creek or Drain
 - ⑤ WV County Route
 - ⑤ WV State Route
- (—) Denotes Location of Well on United States Topographic Maps



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 113H
 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: June 14 20 22
 OPERATOR'S WELL NO.: BIG464 113H
 API WELL NO
 47 - 103 - 03437
 STATE COUNTY PERMIT

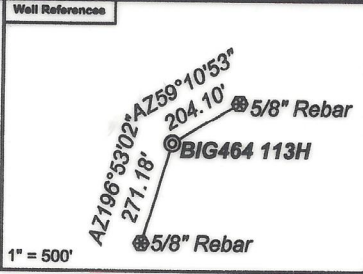
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1246.8' WATERSHED Willey Fork QUADRANGLE: Big Run
 DISTRICT: Grant COUNTY: Wetzel
 SURFACE OWNER: EQT Production Company ACREAGE: 25.25
 ROYALTY OWNER: Ridgetop Royalties, LLC, et al. LEASE 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

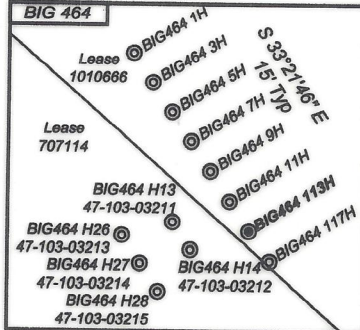
03/01/2024

BIG464 113H
BIG464
EQT Production Company

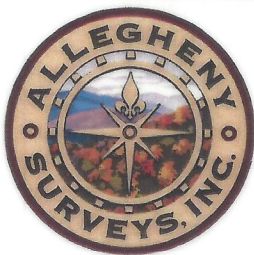
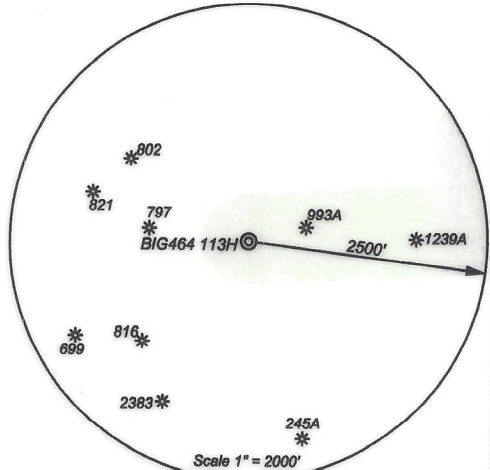
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	14	34	Wetzel	Grant	EQT Production Company	25.25
2	20	1	Wetzel	Grant	Coastal Forest Resources Company	520.00
3	15	27	Wetzel	Grant	Beverly Lynn Barr Life Estate	10.00
4	14	27	Wetzel	Grant	EQT Production Company	22.00
5	14	20	Wetzel	Grant	EQT Production Company	126.50
6	15	16	Wetzel	Grant	Donald J. D'Lusky	25.00
7	14	45	Wetzel	Grant	Coastal Forest Resources Company	11.06
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	Allee H. & Hilda B. Conaway	108.00
16	14	32	Wetzel	Grant	Mary Jane Byard	13.30
17	14	6	Wetzel	Grant	Coastal Forest Resources Company	332.90
18	15	18	Wetzel	Grant	Donald J. D'Lusky	39.50
19	15	12	Wetzel	Grant	William Bowers & Donald J. D'Lusky	147.50
21	15	29	Wetzel	Grant	Terry Phillips, et al.	40.00
22	15	18.1	Wetzel	Grant	Donald J. & Jane A. D'Lusky	29.80
26	15	13	Wetzel	Grant	Donald W. & Danna White	40.00
27			Wetzel	Grant	No Tax Map & Parcel Information	
28	15	7	Wetzel	Grant	Timothy E. Titus	115.00
31	15	5	Wetzel	Grant	William Bowers, et al.	43.20
34	10	28	Wetzel	Grant	Coastal Forest Resources Company	107.00
35	9	39	Wetzel	Grant	Coastal Forest Resources Company	128.00
36	9	38	Wetzel	Grant	Terry L. & Carolyn M. Fry	155.08
38	10	18	Wetzel	Grant	Michael J. & Patricia L. Barber	35.00
55	9	21.2	Wetzel	Grant	David W. & Barbara L. Anderson	1.00
56	9	27.1	Wetzel	Grant	David C. & Susan M. Barr	3.70
57	9	64	Wetzel	Grant	Calvin N. Barr	32.92
58	9	12	Wetzel	Grant	David C. Barr, et al.	80.28
59	9	4	Wetzel	Grant	Gregory & Michael Dulaney	69.00
65	14	28	Wetzel	Grant	Mary Jane Byard	14.80
67	14	25	Wetzel	Grant	ET Blue Grass, LLC	35.88
69	14	19	Wetzel	Grant	Coastal Forest Resources Company	138.68
70	14	13	Wetzel	Grant	Coastal Forest Resources Company	2.80
80	14	5	Wetzel	Grant	Dale K. & Sherry Dulaney	21.50
110	9	10	Wetzel	Grant	William B. & Pamela Francik	233.37
117	9	61	Wetzel	Grant	Jimboe Quiet Mountain Retreat	114.10
129	9	62	Wetzel	Grant	William B. & Pamela S. Francik	30.50
131	9	25	Wetzel	Grant	Deborah Fronczek & John Parks	6.98
133	9	11	Wetzel	Grant	Elizabeth Amundson, et al.	53.37
134	9	2	Wetzel	Grant	Liberty Holding Company	74.50
135	4	8	Wetzel	Grant	James A. Yoho	63.00
141	9	35	Wetzel	Grant	Terry L. & Carolyn M. Fry	6.25
142	9	34	Wetzel	Grant	Terry L. & Carolyn M. Fry	3.25
145	9	32.1	Wetzel	Grant	Terry L. & Carolyn M. Fry	3.40
146	9	38	Wetzel	Grant	Terry L. & Carolyn M. Fry	15.00
148	9	28	Wetzel	Grant	Elizabeth L. Taylor, et al.	10.06
149	20	38	Wetzel	Center	William B. Francik, Sr. & Pamela Spinozo	66.58
150	4	5	Wetzel	Grant	James Daniel Kennedy	100.00
152	9	37	Wetzel	Grant	Terry L. & Carolyn M. Fry	25.00
153	9	27	Wetzel	Grant	David C. Barr, et al.	47.17
154	9	21	Wetzel	Grant	Gregory & Michael Dulaney	59.90
155	9	3	Wetzel	Grant	William B. Francik, Sr. & Pamela Spinozo	50.00
156	4	10	Wetzel	Grant	William B. Francik, Sr. & Pamela Spinozo	76.78
157	20	35	Wetzel	Center	Rachel Elizabeth Wyatt	54.00
158	20	33	Wetzel	Center	Myrna L. Phelps Trust	68.00
159	9	21.1	Wetzel	Center	Louis C. & Carolyn A. Freed	1.35
160	4	11	Wetzel	Center	Liberty Holding Company	89.05
161	9	20	Wetzel	Center	Elizabeth Amundson, et al.	0.09
162	9	11.1	Wetzel	Center	Elizabeth Amundson, et al.	0.06



As Drilled Well Information:
BIG464 113H coordinates are
NAD 27 N: 390,418.37 E: 1,713,430.97
NAD 83 UTM N: 4,379,873.98 E: 541,543.85
BIG464 113H Kick Out Point coordinates are
NAD 27 N: 390,417.39 E: 1,713,428.98
NAD 83 UTM N: 4,379,873.67 E: 541,543.25
BIG464 113H Landing Point coordinates are
NAD 27 N: 391,302.40 E: 1,715,933.51
NAD 83 UTM N: 4,380,156.05 E: 542,301.81
BIG464 113H Bottom Hole coordinates are
NAD 27 N: 406,001.23 E: 1,707,087.09
NAD 83 UTM N: 4,384,589.19 E: 539,532.03
West Virginia Coordinate system of 1927 (North Zone)
based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon
the grid north meridian.
Well location references are based upon the grid north
meridian.
UTM coordinates are NAD83, Zone 17, Meters.

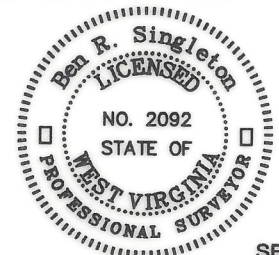


Lease No.	Owner	Acres
712204	Janice E. Nolan, et al.	120
1010666	Ridgetop Royalties, LLC, et al.	25
704100	Piney Holdings, Inc., et al.	70
870575	David E. Bowyer, et al.	147.5
125459	Randel J. Hartman, et al.	693
870450	Pikewood Energy Corporation, et al.	139
120327000	OXY USA Inc., et al.	158.5
870442	Emma Joyce Dahlin Anderson, et al.	62.25
870098	Emma Joyce Dahlin Anderson, et al.	196.5
870460	Goldie Poole, et al.	50
870166	Liberty Holding Company	74
870498	William B. Francik and Pamela S. Francik, Trustees of The William B. and Pamela S. Francik Joint Revocable Living Trust, dated 2/12/2018	67
870125	Miriam K. Knowles, et al.	68



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

Ben R. Singleton
P.S. 2092



FILE NO: 125-16
DRAWING NO: BIG464 113H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: June 14 20 22
OPERATOR'S WELL NO.: BIG464 113H
API WELL NO
47 - 103 - 03437
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