

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: BIG464H13 (516784)

API: 47 - 103 - 03211

Submission:  Initial  Amended

Notes: Please Note That Re-Perforation Measures Were Undertaken For Wire Line Stage 18.

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

API 47-103-03211 County WETZEL District GRANT  
Quad BIG RUN Pad Name BIG464 Field/Pool Name N/A  
Farm name COASTAL FOREST RESOURCES COMPANY D/B/A COSTAL TIMBERLANDS COMPANY Well Number BIG464H13 (516784)  
Operator (as registered with the OOG) EQT Production Company  
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,379,874.97 Easting 541,533.96  
Landing Point of Curve Northing 4,379,361.63 Easting 542,576.01  
Bottom Hole Northing 4,377,497.91 Easting 543,410.79

Elevation (ft) 1247' 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 Based Mud 13.2 ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophylic clay, quaternary ammonium clay, gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose.

Date permit issued 12/12/2017 Date drilling commenced 12/16/2017 Date drilling ceased 07/27/2018  
Date completion activities began 8/10/2018 Date completion activities ceased 8/29/2018  
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 115, 190, 438 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1730, 1854 Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 562, 801, 903, 918 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by:

DNH  
2-21-19

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API 47-103 - 03211

Farm name COASTAL FOREST RESOURCES COMPANY D/S-A COSTAL TIMBERLANDS CO Well number BIG464H13 (516784)

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	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"	1027'	NEW	J-55 54.5#	753'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2848'	NEW	A-500 40#	1750'	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	15904'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 3950' MD, 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 (MD)	WOC (hrs)
Conductor	CLASS A	100	15.6	1.18	118	0	8+
Surface	CLASS A	963	15.6	1.18	1136	0	8
Coal							
Intermediate 1	CLASS A	1042	15.6	1.18	1347	0	8
Intermediate 2							
Intermediate 3							
Production	Class A	3125	15.6	1.19	3718	3950'	8+
Tubing							

Drillers TD (ft) 15914' MD Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 3082' MD

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' FEET TO SURFACE  
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE  
 PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 3230'

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 \_\_\_\_\_



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API 47- 103 - 03211 Farm name COASTAL FOREST RESOURCES COMPANY DBA COASTAL TIMBERLANDS COMP Well number BIG464H13 (516784)

PRODUCING FORMATION(S)	DEPTHS		
MARCELLUS	7,583'	TVD	8,949 MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2,450 psi Bottom Hole N/A psi DURATION OF TEST 126 hrs

OPEN FLOW Gas 15,215 mcfpd Oil N/A bpd NGL 0 bpd Water 1,956 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling  
Address 2640 Reach Road City Williamsport State PA Zip 17701

Logging Company Baker Hughes  
Address 400 Technology Drive - Suite 100 City Cannonsburg State PA Zip 15317

Cementing Company BJ Services, LLC  
Address 4000 Town Center Blvd, Suite 210 City Cannonsburg State PA Zip 15317

Stimulating Company ProFrac  
Address 777 Main Street, Suite 3900 City Ft. Worth State TX Zip 76102

Please insert additional pages as applicable.

Completed by Bradley Maddox Telephone (412) 395-7053  
Signature *[Signature]* Title VP - Drilling & Completions Date 11/20/2018

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

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API 47- 103 - 03211 Farm name COASTAL FOREST RESOURCES COMPANY D/B/A COASTAL TIMBERLANDS Well number BIG464H13 (516784)

Drilling Contractor Fountain Quail  
Address P.O. Box 430 City Reno State OH Zip 45773

Logging Company Gyrodatta Inc.  
Address 73 Noblestown Road City Carnegie State PA Zip 15106

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

Cementing Company Universal  
Address 13549 S. Mosiertown Rd City Meadville State PA Zip 16335

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Stage Number	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	8/10/2018	79	8,302.00	8,639.00	4,421.00	180,400.00	5,865.50	0
2	8/11/2018	80	8,214.00	8,843.00	4,007.00	450,560.00	9,122.27	0
3	8/11/2018	89	8,431.00	8,696.00	4,421.00	450,360.00	10,508.70	0
4	8/12/2018	84	8,571.00	8,936.00	4,489.00	450,500.00	10,012.70	0
5	8/12/2018	83	8,202.00	8,727.00	4,869.00	450,130.00	9,474.05	0
6	8/12/2018	76	8,205.00	8,726.00	4,490.00	450,347.00	9,929.10	0
7	8/13/2018	81	8,353.00	8,884.00	4,380.00	450,160.00	8,850.35	0
8	8/14/2018	84	8,412.00	8,739.00	4,453.00	453,600.00	9,620.60	0
9	8/14/2018	66	9,015.00	9,203.00	5,078.00	452,200.00	9,626.90	0
10	8/15/2018	88	8,992.00	9,260.00	5,663.00	452,900.00	8,331.30	0
11	8/16/2018	84	9,022.00	9,332.00	5,398.00	450,440.00	8,527.10	0
12	8/16/2018	86	9,170.00	9,360.00	4,996.00	450,080.00	8,445.03	0
13	8/17/2018	72	9,044.00	9,543.00	5,071.00	453,440.00	11,950.10	0
14	8/18/2018	87	9,156.00	9,378.00	6,371.00	395,500.00	12,657.42	0
15	8/19/2018	91	9,005.00	9,360.00	6,285.00	450,820.00	8,189.42	0
16	8/20/2018	79	9,156.00	9,476.00	5,843.00	396,500.00	11,564.00	0
17	8/20/2018	95	8,872.00	9,363.00	5,283.00	450,500.00	7,936.90	0
18	8/21/2018	93	8,556.00	9,036.00	4,845.00	449,560.00	9,152.60	0
19	8/21/2018	100	8,632.00	9,167.00	5,040.00	450,720.00	7,964.55	0
20	8/21/2018	97	8,294.00	8,954.00	5,383.00	452,800.00	8,137.00	0
21	8/22/2018	95	8,842.00	9,290.00	5,014.00	450,380.00	7,928.80	0
22	8/22/2018	94	8,460.00	8,736.00	5,838.00	451,840.00	8,654.80	0
23	8/23/2018	99	8,786.00	9,298.00	5,885.00	450,140.00	7,824.68	0
24	8/24/2018	97	8,530.00	8,927.00	5,020.00	451,660.00	9,062.50	0
25	8/24/2018	100	8,536.00	8,835.00	5,416.00	450,720.00	7,536.00	0
26	8/24/2018	95	8,824.00	9,191.00	5,623.00	453,040.00	8,375.00	0
26	8/25/2018	87	8,862.00	9,412.00	5,669.00	361,240.00	10,729.10	0
28	8/26/2018	89	8,253.00	8,902.00	5,891.00	451,940.00	10,356.00	0
29	8/26/2018	91	8,935.00	9,126.00	6,241.00	450,800.00	7,707.02	0
30	8/27/2018	98	8,644.00	8,904.00	5,940.00	450,500.00	8,517.00	0
31	8/27/2018	91	8,841.00	9,104.00	5,742.00	449,920.00	7,896.60	0
32	8/28/2018	89	8,446.00	9,298.00	5,930.00	450,220.00	7,305.10	0
33	8/28/2018	100	8,573.00	8,897.00	5,665.00	450,380.00	7,816.90	0
34	8/29/2018	95	8,362.00	8,714.00	5,893.00	449,720.00	7,432.80	0
35	8/29/2018	98	8,566.00	8,995.00	5,834.00	450,620.00	7,475.80	0

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Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
1	8/8/2018	15,800	15,862	36	MARCELLUS
2	8/10/2018	15,600	15,762	40	MARCELLUS
3	8/11/2018	15,400	15,562	40	MARCELLUS
4	8/11/2018	15,200	15,362	40	MARCELLUS
5	8/12/2018	15,000	15,162	40	MARCELLUS
6	8/12/2018	14,800	14,962	40	MARCELLUS
7	8/13/2018	14,600	14,762	40	MARCELLUS
8	8/13/2018	14,400	14,562	40	MARCELLUS
9	8/14/2018	14,200	14,362	40	MARCELLUS
10	8/15/2018	14,000	14,162	40	MARCELLUS
11	8/15/2018	13,800	13,962	40	MARCELLUS
12	8/16/2018	13,600	13,762	40	MARCELLUS
13	8/16/2018	13,400	13,562	40	MARCELLUS
14	8/18/2018	13,200	13,362	40	MARCELLUS
15	8/18/2018	13,000	13,162	40	MARCELLUS
16	8/19/2018	12,800	12,962	40	MARCELLUS
17	8/20/2018	12,600	12,762	40	MARCELLUS
18	8/20/2018	12,400	12,562	72	MARCELLUS
19	8/21/2018	12,200	12,362	40	MARCELLUS
20	8/21/2018	12,000	12,162	40	MARCELLUS
21	8/22/2018	11,800	11,962	40	MARCELLUS
22	8/22/2018	11,600	11,762	40	MARCELLUS
23	8/22/2018	11,400	11,562	40	MARCELLUS
24	8/23/2018	11,200	11,362	40	MARCELLUS
25	8/24/2018	11,000	11,162	40	MARCELLUS
26	8/24/2018	10,800	10,962	40	MARCELLUS
27	8/24/2018	10,600	10,762	40	MARCELLUS
28	8/25/2018	10,400	10,562	40	MARCELLUS
29	8/26/2018	10,200	10,362	40	MARCELLUS
30	8/26/2018	10,000	10,162	40	MARCELLUS
31	8/27/2018	9,800	9,962	40	MARCELLUS
32	8/27/2018	9,600	9,762	40	MARCELLUS
33	8/28/2018	9,400	9,562	40	MARCELLUS
34	8/28/2018	9,200	9,362	40	MARCELLUS
35	8/29/2018	9,000	9,162	40	MARCELLUS

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/10/2018
Job End Date:	8/29/2018
State:	West Virginia
County:	Wetzel
API Number:	47-103-03211-00-00
Operator Name:	EQT Production
Well Name and Number:	516784
Latitude:	39.56748400
Longitude:	-80.51665100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,583
Total Base Water Volume (gal):	13,040,315
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	ProFrac	Carrier/Base Fluid	Water	7732-18-5	100.00000	87.40769	None
ProBreak 100	ProFrac	Gelling Agent					
				Listed Below			

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Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.		Listed Below				
	Silica Substrate	14808-60-7	100.00000	12.30104	None	
	Petroleum Distillates, Hydrotreated Light Naphthenic	64742-53-6	60.00000	0.04716	None	
	Proprietary Polymers	Proprietary	60.00000	0.04716		
	Proprietary Polymers	Proprietary	60.00000	0.04716	None	
	Petroleum Distillates, Hydrotreated Light Naphthenic	64742-53-6	60.00000	0.04716		
	Hydrochloric Acid	7647-01-0	15.00000	0.02801	None	
	Non-Hazardous Substances	Proprietary	90.00000	0.02004	None	
	Non-Hazardous Substances	Proprietary	90.00000	0.02004		
	Glutaraldehyde	111-30-8	20.00000	0.00445	None	
	Glutaraldehyde	111-30-8	20.00000	0.00445		
	Polycarboxylic Acid Salt Mixture	Proprietary	40.00000	0.00081	None	
	Hydrotreated Light Distillate(Petroleum)	64742-47-8	65.00000	0.00071	None	
	Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00067		
	Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00067	None	
	Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00067		
	Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00067	None	
	Gum Guar	9000-30-0	50.00000	0.00055	None	
	Methanol	67-56-1	90.00000	0.00037	None	
	Citric Acid	77-92-9	100.00000	0.00006		
	Citric Acid	77-92-9	100.00000	0.00006	None	
	Ammonium Persulfate	7727-54-0	100.00000	0.00006	None	
	Xylene	1330-20-7	5.00000	0.00002	None	

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	Alcohols, C7-9-ISO, C8 Rich	68526-83-0	5.00000	0.00002	None
	Xylene	1330-20-7	5.00000	0.00002	
	Alcohols, C7-9-ISO, C8 Rich	68526-83-0	5.00000	0.00002	
	Imidazoline	61790-69-0	5.00000	0.00002	
	Imidazoline	61790-69-0	5.00000	0.00002	None
	Propargyl Alcohol	107-19-7	5.00000	0.00002	None
	Isopropanol	67-63-0	5.00000	0.00002	None
	Ethylbenzene	100-41-4	1.00000	0.00000	None
	Ethylbenzene	100-41-4	1.00000	0.00000	

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water  
 \*\* Information is based on the maximum potential for concentration and thus the total may be over 100%  
 \*\*\* If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line  
 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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API# 47-103-03211-00-00 Final Formations Well# BIG464H13 (516784)				
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
SAND/SHALE	1	1	562	562
WAYNESBURG COAL	562	562	565	565
SAND/SHALE	565	565	801	801
COAL	801	801	803	803
SAND/SHALE	803	803	903	903
SEWICKLEY COAL	903	903	905	905
SAND/SHALE	905	905	918	918
PITTSBURGH COAL	918	918	925	925
SAND/SHALE	925	925	1818	1818
MAXTON	1818	1818	1997	1997
SAND/SHALE	1997	1997	2260	2260
BIG LIME	2260	2260	2336	2336
SAND/SHALE	2336	2336	2348	2348
BIG INJUN	2348	2348	2417	2417
SAND/SHALE	2417	2417	2546	2546
WEIR	2546	2546	2696	2696
SAND/SHALE	2696	2696	2761	2761
GANTZ	2761	2761	2797	2797
SAND/SHALE	2797	2797	2902	2902
FIFTY FOOT	2902	2902	2958	2958
SAND/SHALE	2958	2958	2997	2997
THIRTY FOOT	2997	2997	3024	3024
SAND/SHALE	3024	3024	3053	3053
GORDON	3053	3053	3098	3098
SAND/SHALE	3098	3098	3123	3123
FORTH SAND	3123	3123	3136	3136
SAND/SHALE	3136	3136	3195	3194
FIFTH SAND	3195	3194	3214	3213
SAND/SHALE	3214	3213	3248	3246
BAYARD	3248	3246	3266	3263
SAND/SHALE	3266	3263	3671	3627
WARREN	3671	3627	3695	3646
SAND/SHALE	3695	3646	3791	3720
SPEECHLEY	3791	3720	3839	3757
SAND/SHALE	3839	3757	4149	3991
BALLTOWN A	4149	3991	4164	4003
SAND/SHALE	4164	4003	4634	4358
RILEY	4634	4358	4676	4390
SAND/SHALE	4676	4390	5263	4832
BENSON	5263	4832	5312	4868
SAND/SHALE	5312	4868	5677	5147
ALEXANDER	5677	5147	5744	5199
ELKS	5744	5199	8165	7075
SONYEA	8165	7075	8383	7244
MIDDLESEX	8383	7244	8465	7307
GENESEE	8465	7307	8606	7413
GENESEO	8606	7413	8654	7446
TULLY	8654	7446	8698	7475
HAMILTON	8698	7475	8949	7583
MARCELLUS	8949	7583	15914	7654

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WELL OPERATOR: EQT Production Company  
 ADDRESS: 115 Professional Place PO Box 280 Bridgeport, WV 26330  
 DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 Bridgeport, WV 26330

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: As Built: 1246.8' WATERSHED: Wiley Fork  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company  
 ACREAGE: 542.5  
 ROYALTY OWNER: Ridgely Royalties LLC, et al  
 LEASE NO.: 707114  
 ACREAGE: 78  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORM NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus  
 ESTIMATED DEPTH: 7,419'

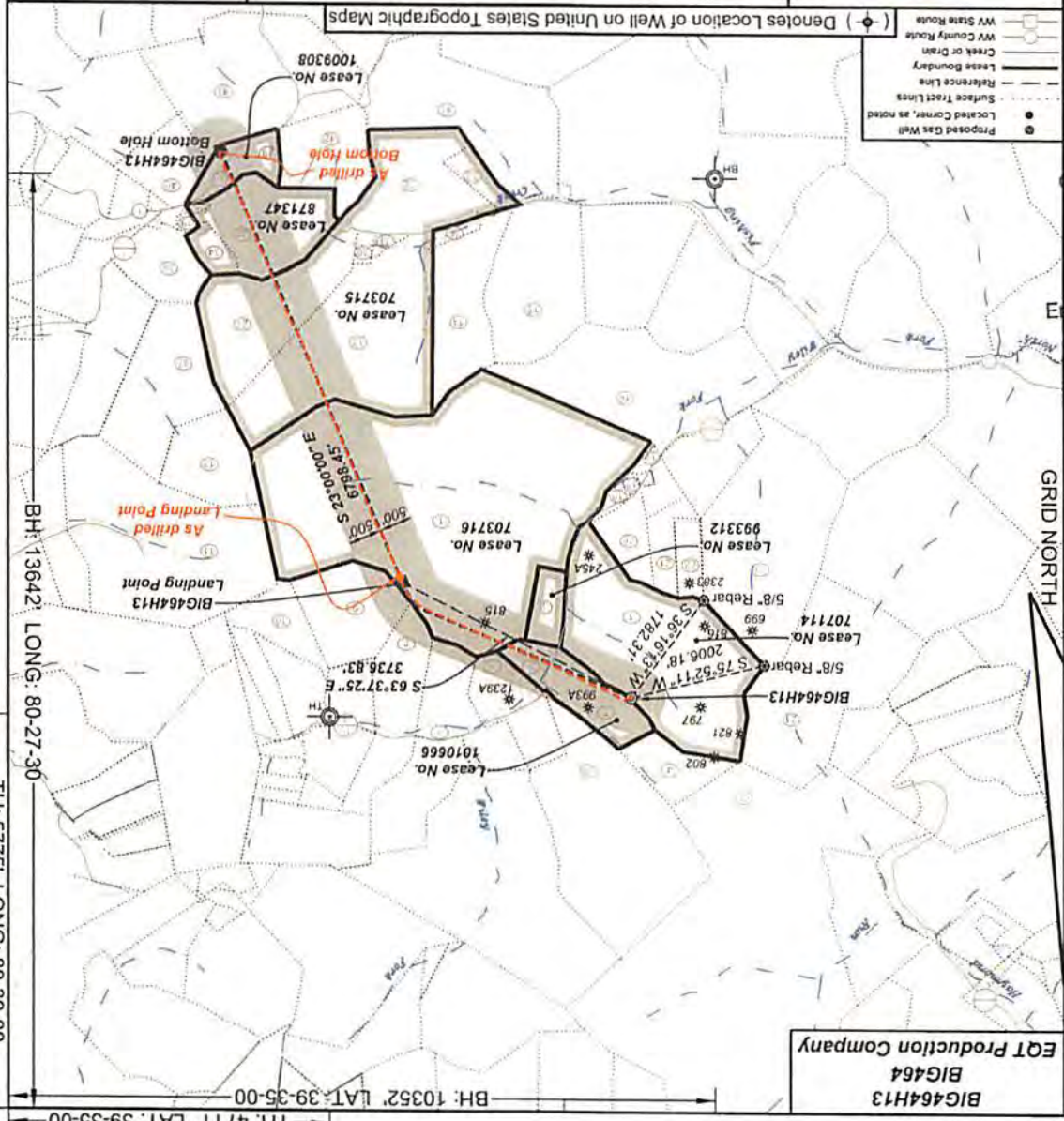
FILE NO. 125-16  
 DRAWING NO. 125-16 BIG464H13  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: NGS CORRS Station

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

DATE: August 9, 2018  
 OPERATOR'S WELL NO. BIG464H13  
 API WELL NO. 47-103-03211  
 STATE COUNTY PERMIT

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.  
 P.S. 2092

Bas R. Singleton  
 No. 2092  
 State of West Virginia  
 Professional Surveyor



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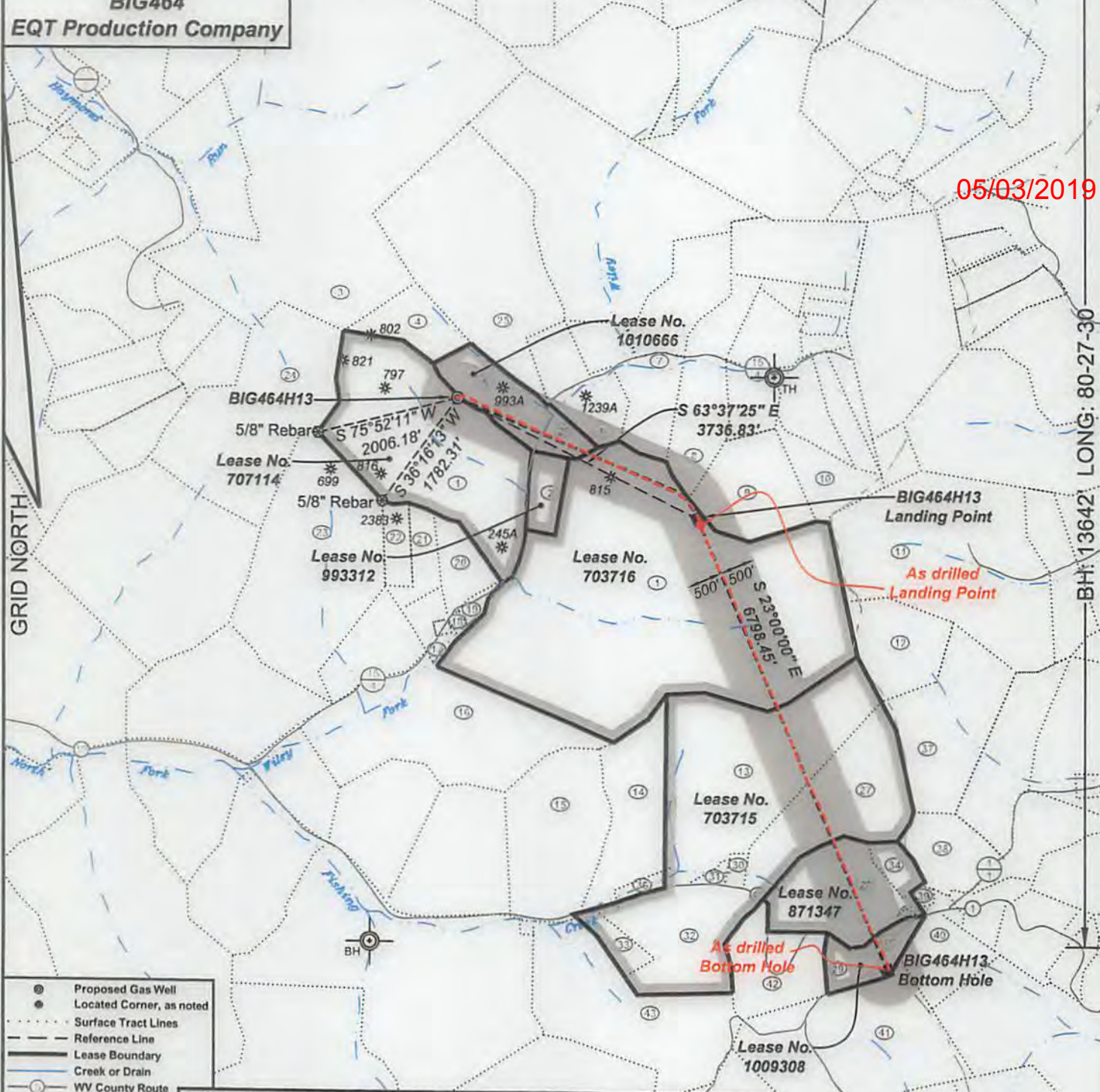
**BIG464H13**  
**BIG464**  
**EQT Production Company**

TH: 4711' LAT: 39-35-00  
 BH: 10352' LAT: 39-35-00

TH: 5775' LONG: 80-30-00

05/03/2019

GRID NORTH



- ⊙ 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: 125-16  
 DRAWING NO: 125-16 BIG464H13  
 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: August 9 20 18  
 OPERATOR'S WELL NO.: BIG464H13  
 API WELL NO  
 47 - 103 - 03211  
 STATE COUNTY PERMIT

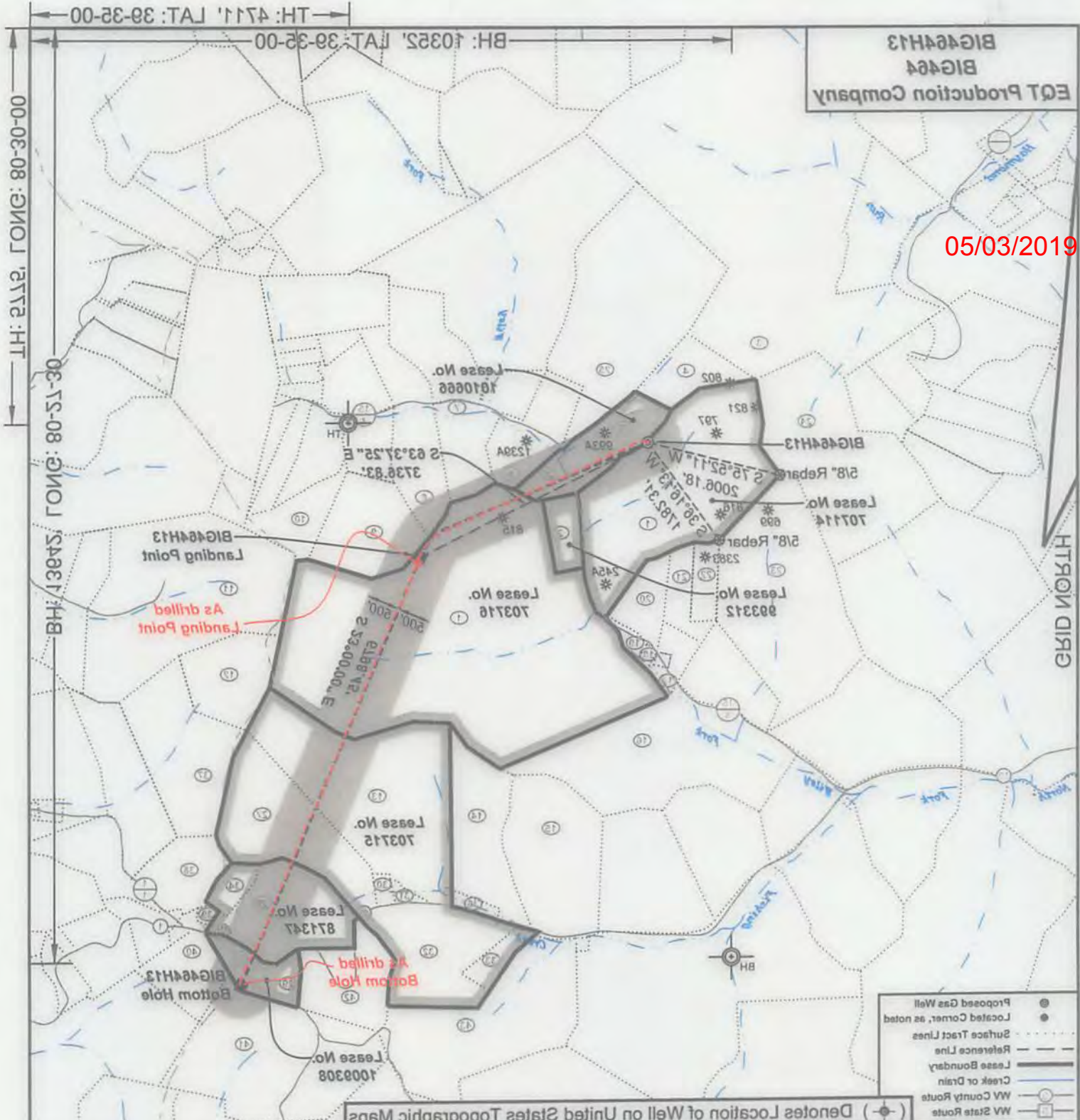
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: As Built: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel  
 SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 542.5  
 ROYALTY OWNER: Ridgetop Royalties LLC, et al LEASE NO: 707114 ACREAGE: 78  
 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: 7,419'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330 Bridgeport, WV 26330



EQT Production Company  
BIG464  
BIG464H13

05/03/2019



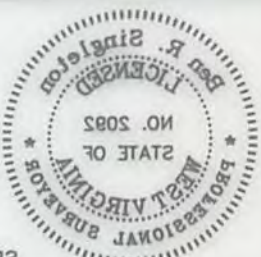
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

( ) 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.

P.S. 2092



DATE: August 9 2018 OPERATOR'S WELL NO.: BIG464H13 API WELL NO STATE COUNTY PERMIT 47 103 03211	<b>STATE OF WEST VIRGINIA</b> <b>DEPARTMENT OF ENVIRONMENTAL PROTECTION</b> <b>OIL AND GAS DIVISION</b>	FILE NO: 125-18 DRAWING NO: 125-18 BIG464H13 SCALE: 1" = 2000' MINIMUM DEGREE OF ACCURACY: 1:2500 PROVEN SOURCE OF ELEVATION: NGS CORS Station
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WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

(IF GAS PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION: As Bull: 1248.8' WATERSHED: Willey Fork QUADRANGLE: Big Run

DISTRICT: Grant COUNTY: Wetzel

SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 545.5

ROYALTY OWNER: Ridgetop Royalties LLC, et al LEASE NO: 707114 ACREAGE: 78

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: 7418'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson

ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280

Bhdqport, WV 26330 Bhdqport, WV 26330



**BIG464H13**  
**BIG464**  
**EQT Production Company**

As Drilled Well Information:  
BIG464H13 coordinates are  
NAD 27 N: 390,422.16 E: 1,713,398.55  
NAD 83 UTM N: 4,379,874.97 E: 541,533.96

BIG464H13 Landing Point coordinates are  
NAD 27 N: 388,680.54 E: 1,716,789.86  
NAD 83 UTM N: 4,379,361.63 E: 542,576.01

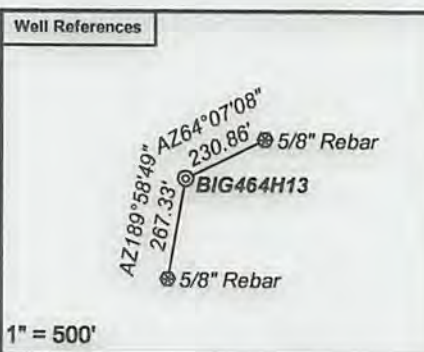
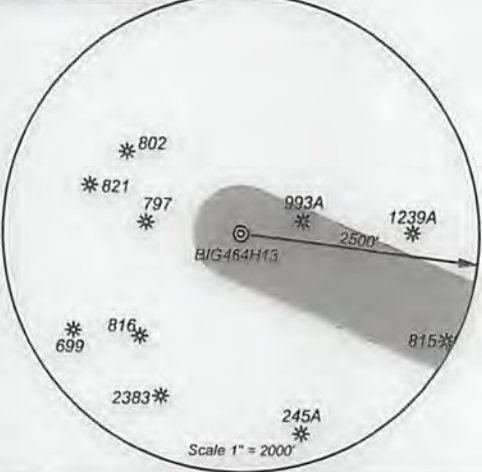
BIG464H13 Bottom Hole coordinates are  
NAD 27 N: 382,519.22 E: 1,719,999.99  
NAD 83 UTM N: 4,377,497.91 E: 543,410.79

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 I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	20	1	Wetzel	Grant	Coastal Forest Resources Co.	542.50
2	15	27	Wetzel	Grant	William J. Barr	10.00
3	14	6	Wetzel	Grant	Coastal Lumber Co.	332.00
4	14	27	Wetzel	Grant	The E. Loma Howard Trust, LLC, et al.	22.00
5	14	34	Wetzel	Grant	The E. Loma Howard Trust, LLC, et al.	25.25
6	15	16	Wetzel	Grant	Donald J. D'Lusky	25.00
7	15	18	Wetzel	Grant	Donald J. D'Lusky	36.40
8	15	29	Wetzel	Grant	Terry W. & Carolyn P. Phillips	40.00
9	15	34	Wetzel	Grant	John C. & Donald J. D'Lusky	42.00
10	15	35	Wetzel	Grant	John C. & Donald J. D'Lusky	17.63
11	43	11	Marion	Mannington	Robert & Maxine Tonkery	85.00
12	43	11.1	Marion	Mannington	David A. & Diane E. Floyd	30.00
13	20	3	Wetzel	Grant	Chester R. & Audra I. Powell	99.82
14	20	2	Wetzel	Grant	Marsha L. Barr, et al.	41.40
15	20	2.1	Wetzel	Grant	Larry & Marry Shimp	63.00
16	19	19.3	Wetzel	Grant	Richard M. & Mary G. Underwood	99.82
17	19	14	Wetzel	Grant	William D. & Mabel F. Barr	1.00
18	19	12	Wetzel	Grant	William D. & Mabel F. Barr	1.10
19	19	13	Wetzel	Grant	William D. & Mabel F. Barr	2.00
20	14	45	Wetzel	Grant	Coastal Forest Resources Co.	11.06
21	14	44	Wetzel	Grant	Mabel F. Barr	11.00
22	14	43	Wetzel	Grant	Mabel F. Barr	11.01
23	14	42	Wetzel	Grant	Donald J. D'Lusky	111.00
24	14	33	Wetzel	Grant	Atlee & Hilda Conaway	108.00
25	14	20	Wetzel	Grant	Elsie L. Hill Trust	126.50
26	none	none	Wetzel	Grant	Unknown	unknown
27	20	4	Wetzel	Grant	Jennifer L. Archer, et al.	70.00
28	20	10	Wetzel	Grant	Chester R. & Sandra L. Craver	46.78
29	20	11	Wetzel	Grant	Nancy Wyckoff, et al.	16.41
30	20	3.1	Wetzel	Grant	Gary F. Fisher	2.25
31	20	3.2	Wetzel	Grant	Linda Corwin, et al.	1.18
32	20	8	Wetzel	Grant	Stephen J. & Richard M. Underwood	64.00
33	20	7	Wetzel	Grant	Bernard D. Holbert, et al.	8.00
34	20	12	Wetzel	Grant	Beverly Powell, et al.	6.74
35	20	14	Wetzel	Grant	Chester R. & Sandra L. Craver	1.00
36	20	7.1	Wetzel	Grant	John H. Frye, Jr. & Denise Frye	3.91
37	45	29	Marion	Mannington	Raymond C. Teagarden	61.017
38	45	30	Marion	Mannington	Keith A. & Rita G. Powell	21.50
39	20	13	Wetzel	Grant	Beverly Powell, et al.	1.80
40	45	1	Marion	Mannington	Nancy Wyckoff, et al.	26.75
41	20	16	Wetzel	Grant	EQT Production Company	107.93
42	20	9	Wetzel	Grant	Roger B. & Marry A. Powell	34.50
43	20	6	Wetzel	Grant	Bernard D. Holbert, et al.	102.50



Lease No.	Acres	Owner
703716	400	Ridgetop Royalties LLC, et al
1010666	32	Ridgetop Royalties LLC, et al
703715	375.67	Nancy Hobbs, et al
871347	52.5	William B. Francik & Pamela Francik, et al
1009308	16.41	Keith A. Powell, et al

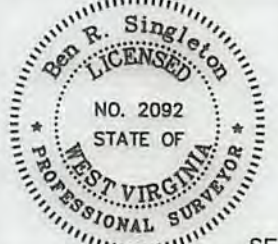


- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route



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*Ben R. Singleton*  
P.S. 2092



FILE NO: 125-16  
DRAWING NO: 125-16 BIG464H13  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: August 9 20 18  
OPERATOR'S WELL NO.: BIG464H13  
API WELL NO  
47 - 103 - 03211  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
LOCATION: ELEVATION: As Built: 1246.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run  
DISTRICT: Grant COUNTY: Wetzel  
SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 542.5  
ROYALTY OWNER: Ridgetop Royalties LLC, et al LEASE NO: 707114 ACREAGE: 78  
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: 7,419'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

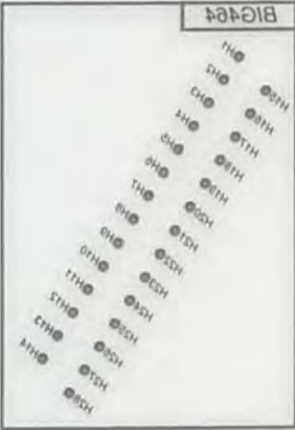


Tract I.D.	Tract Area	County	District	Surface Tract Owner	Acres
1	20	West	Grant	Coastal Forest Resources Co	242.20
2	23	West	Grant	William J. Barr	1.00
3	14	West	Grant	Coastal Lumber Co	202.80
4	24	West	Grant	The E. Louis Howard Trust, LLC, et al.	22.00
5	24	West	Grant	The E. Louis Howard Trust, LLC, et al.	20.20
6	22	West	Grant	Donald J. D'Uyky	28.00
7	18	West	Grant	Donald J. D'Uyky	28.40
8	18	West	Grant	Terry W. & Carolyn F. Frispa	40.00
9	18	West	Grant	John C. & Donald J. D'Uyky	43.00
10	22	West	Grant	John C. & Donald J. D'Uyky	17.80
11	43	Manning	Manning	Robert & Maxine Tokarczyk	88.00
12	43	Manning	Manning	David A. & Diane E. Lloyd	20.00
13	20	West	Grant	Charles R. & Aulda J. Powell	68.80
14	20	West	Grant	Marvin L. Barr, et al.	41.40
15	20	West	Grant	Larry & Mary Shimp	62.00
16	18	West	Grant	Richard M. & Mary G. Dunwood	68.80
17	18	West	Grant	William D. & Madal F. Barr	1.00
18	13	West	Grant	William D. & Madal F. Barr	1.10
19	13	West	Grant	William D. & Madal F. Barr	2.00
20	14	West	Grant	Coastal Forest Resources Co	11.00
21	14	West	Grant	Mabel F. Barr	11.00
22	14	West	Grant	Mabel F. Barr	11.00
23	14	West	Grant	Donald J. D'Uyky	11.00
24	14	West	Grant	Allen & Hilda Conway	108.00
25	14	West	Grant	Ellis J. Hig Tinn	124.50
26	1000	West	Grant	Unknown	Unknown
27	20	West	Grant	James L. Archer, et al.	20.00
28	20	West	Grant	Charles R. & Aulda J. Powell	48.78
29	20	West	Grant	Nancy Wicker, et al.	48.44
30	20	West	Grant	Gay F. Fisher	2.20
31	20	West	Grant	Linda Cowler, et al.	1.18
32	20	West	Grant	Bishop J. & Richard M. Dunwood	68.00
33	20	West	Grant	Bernard D. Hubert, et al.	8.00
34	20	West	Grant	Beverly Powell, et al.	8.24
35	20	West	Grant	Charles R. & Aulda J. Powell	1.00
36	20	West	Grant	John H. Frye, et al. & Denise Frye	2.94
37	48	Manning	Manning	Raymond C. Teagarden	81.71
38	48	Manning	Manning	Karla A. & Bill G. Powell	21.80
39	20	West	Grant	Beverly Powell, et al.	1.80
40	48	Manning	Manning	Nancy Wicker, et al.	28.78
41	20	West	Grant	EQT Production Company	101.80
42	20	West	Grant	Philip B. & Mary A. Powell	24.20
43	20	West	Grant	Bernard D. Hubert, et al.	102.30

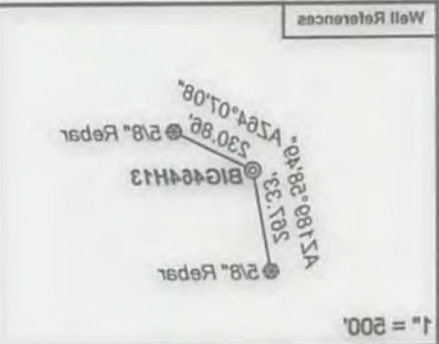
05/03/2019

UTM coordinates are NAD83, Zone 17, Meters.  
 Well location references are based upon the grid north  
 the grid north meridian.  
 Flat orientation, corner and well ties are based upon  
 based upon Differential GPS Measurements.  
 West Virginia Coordinate system of 1827 (North Zone)

NAD 83 UTM N: 4,377,487.91 E: 543,440.79  
 NAD 83 UTM N: 382,819.22 E: 1,719,427.28  
 NAD 83 UTM N: 4,379,361.63 E: 542,276.01  
 NAD 83 UTM N: 4,378,874.97 E: 541,233.98



Owner	Lease No	Acres
Kelth A. Powell, et al	1009308	18.41
William B. Franck & Pamela Franck, et al	871347	52.5
Nancy Hobbs, et al	70715	37.67
Ridgtop Royalties LLC, et al	1010866	32
Ridgtop Royalties LLC, et al	70718	400



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



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*[Signature]*  
 P.S. 2092



DATE: August 9, 2018  
 OPERATOR'S WELL NO.: BIG464H13  
 API WELL NO.  
 STATE COUNTY PERMIT  
 47 - 103 - 03211

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

FILE NO: 125-18  
 DRAWING NO: 125-18 BIG464H13  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION: ELEVATION: As Built: 1248.8' WATERSHED: Wiley Fork QUADRANGLE: Big Run  
 DISTRICT: Grant COUNTY: Wetzel SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company  
 ROYALTY OWNER: Ridgtop Royalties LLC, et al LEASE NO: 70714 ACREAGE: 78  
 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: 7,419'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bhdgport, WV 26330 Bhdgport, WV 26330