

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 516847

API: 47 - 103 - 03166

Submission: Initial Amended

Notes: Initial report w/ flowback

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Office of Oil and Gas
NOV 16 2017
WV Department of
Environmental Protection

02/16/2018

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

API 47 - 103 - 03166 County Wetzel District Grant
Quad Big Run Pad Name BIG 190 Field/Pool Name N/A
Farm name Coastal Forest Resources Co. DBA Coastal Timberlands Co. Well Number 516847
Operator (as registered with the OOG) EQT Production Company
Address 625 Liberty Ave. EQT Plaza, 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 4,378,168.74 Easting 533,886.80
Landing Point of Curve Northing 4,378,467.89 Easting 534,415.97
Bottom Hole Northing 4,380,114.56 Easting 533,886.16

Elevation (ft) 1474 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) Water Base Mud 14.5 ppg, aliphatic based non-aqueous drilling fluid, banum 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 01/09/2017 Permit Mod 02/07/2017 Date drilling commenced 03/12/2017 Date drilling ceased 07/21/2017
Date completion activities began 8/13/2017 Date completion activities ceased 8/22/2017
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 88', 391', 507' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2233', 2358' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 737', 860', 1051', 1202' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Dhik
02/16/2018

API 47-103 - 03166

Farm name Coastal Forest Resources Co. DBA Coastal Timberlands Co.

Well number 516847

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"	1286'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-3/8" & 12-1/4"	9-5/8"	2725'	NEW	A-500 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	14228'	NEW	P-100 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 6676' 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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	49	15.6	1.18	56	0	8
Surface	CLASS A	1125	15.6	1.20	1350	0	8
Coal							
Intermediate 1	Class A	1013	15.6	1.18	1195	0	8
Intermediate 2							
Intermediate 3							
Production	Class H / Class H	220 / 710	15.2 / 15.6	1.16 / 2.10	1746	6676'	8
Tubing							

Drillers TD (ft) 14299' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 4575' 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 1: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE

PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 2792'

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 - 03166 Farm name Coastal Forest Resources Co. DBA Coastal Timberlands Co. Well number 516847

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Logging Company Pro Directional
Address 750 Conroe Park North Dr. City Conroe State TX Zip 77303

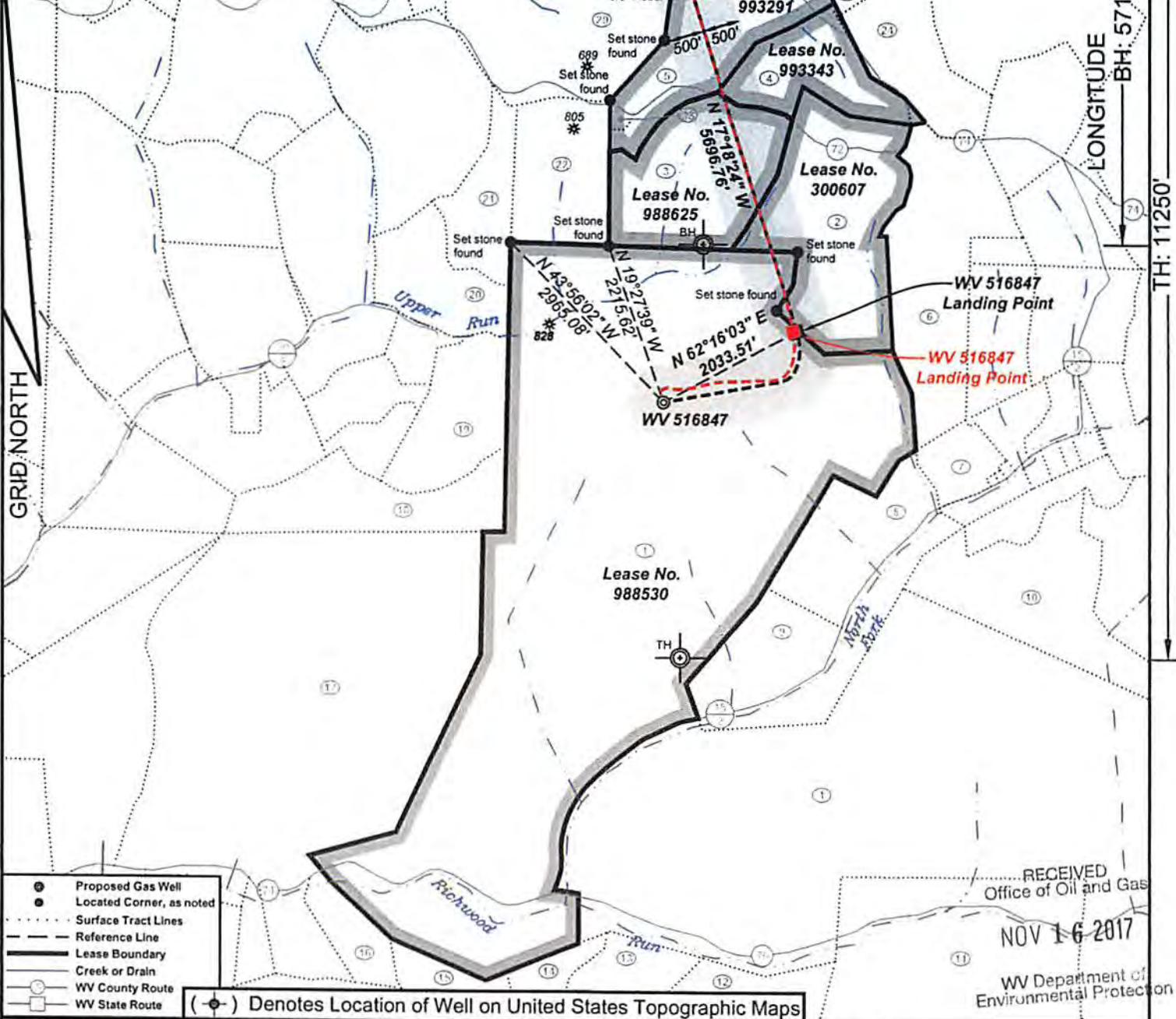
Cementing Company C&J Energy
Address 2504 Smith Creek Road City Waynesburg State PA Zip 15370

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Final Formations Well# 516847 API# 47-103-03166				
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
SAND/SHALE	1	1	740	740
WASHINGTON COAL	737	737	740	740
SAND/SHALE	740	740	860	860
WAYNESBURG COAL	860	860	862	862
SAND/SHALE	862	862	1051	1051
COAL	1051	1051	1056	1056
SAND/SHALE	1056	1056	1202	1202
PITTSBURGH COAL	1202	1202	1208	1208
SAND/SHALE	1208	1208	2265	2263
MAXTON	2265	2263	2343	2341
SAND/SHALE	2343	2341	2421	2419
BIG LIME	2421	2419	2535	2532
SAND/SHALE	2535	2532	2550	2547
BIG INJUN	2550	2547	2656	2653
SAND/SHALE	2656	2653	2827	2824
WEIR	2827	2824	2920	2917
SAND/SHALE	2920	2917	3039	3036
GANTZ	3039	3036	3086	3083
SAND/SHALE	3086	3083	3147	3144
50F	3147	3144	3164	3161
SAND/SHALE	3164	3161	3178	3175
THIRTY FOOT	3178	3175	3226	3223
SAND/SHALE	3226	3223	3258	3255
GORDON	3258	3255	3303	3300
SAND/SHALE	3303	3300	3344	3341
FOURTH SAND	3344	3341	3359	3356
SAND/SHALE	3359	3356	3460	3457
BAYARD	3460	3457	3477	3474
SAND/SHALE	3477	3474	3879	3876
WARREN	3879	3876	3973	3970
SAND/SHALE	3973	3970	4080	4077
SPEECHLEY	4080	4077	4102	4099
SAND/SHALE	4102	4099	4178	4175
BALLTOWN A	4178	4175	4394	4391
SAND/SHALE	4394	4391	4825	4817
RILEY	4825	4817	4843	4835
SAND/SHALE	4843	4835	5552	5487
BENSON	5552	5487	5618	5538
SAND/SHALE	5618	5538	6494	6182
ALEXANDER	6494	6182	6543	6220
ELKS	6543	6220	7741	7142
SONYEA	7741	7142	7925	7282
MIDDLESEX	7925	7282	8004	7339
GENESEE	8004	7339	8124	7417
GENESE0	8124	7417	8172	7445
TULLY	8172	7445	8216	7467
HAMILTON	8216	7467	8474	7555
MARCELLUS	8474	7555	14299	7513

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- 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

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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



SEAL

FILE NO: 196-34-G-10
DRAWING NO: 196-10 Big 190 H19
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 2 20 17
OPERATOR'S WELL NO.: 516847
API WELL NO
47 - 103 - 03166
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1473.5' (As-built) WATERSHED Upper Run and North Fork QUADRANGLE: Big Run
DISTRICT: Grant COUNTY: Wetzel
SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 163.5
ROYALTY OWNER: Mills-Wetzel Land, Inc. LEASE NO: 988530 ACREAGE: 659
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

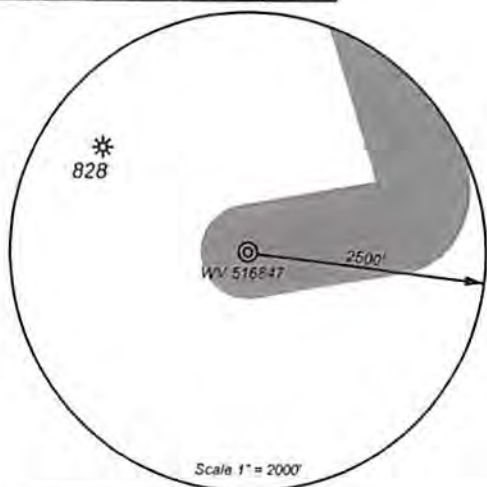
02/16/2018

2	13	46	Wetzel	Grant	Surri Hentnorn Est, et al.	99.00
3	12	47	Wetzel	Grant	Coastal Forest Resources Co.	87.50
4	13	35	Wetzel	Grant	Jennie B. Goddard, et al.	50.00
5	12	43	Wetzel	Grant	Jennie B. Goddard, et al.	74.50
6	18	1	Wetzel	Grant	McKinley E. Calvert Heirs	100.00
7	18	14	Wetzel	Grant	Frank M. & Frankie L. Dulaney	9.55
8	18	13	Wetzel	Grant	Ralph G. Dulaney	87.50
9	18	17	Wetzel	Grant	Alan D. & Diana L. Barr	13.00
10	18	22	Wetzel	Grant	Karen R. Dennison, et al.	111.40
11	23	5	Wetzel	Grant	Thomas E. Wyatt, et al.	174.68
12	23	4	Wetzel	Grant	Dallison Lumber Inc.	36.10
13	23	2	Wetzel	Grant	Billy D. Arnolds, Jr.	38.80
14	23	1	Wetzel	Grant	Billy D. Arnolds, Jr.	16.50
15	22	27	Wetzel	Grant	Dallison Lumber Inc.	31.35
16	22	13	Wetzel	Grant	James Jones, et al.	16.75
17	17	16	Wetzel	Grant	David A. Arnolds	402.61
18	17	13	Wetzel	Grant	David A. Arnolds	62.25
19	17	12	Wetzel	Grant	Rhonda K. Spencer	57.20
20	17	4	Wetzel	Grant	George W. Cain	42.60
21	12	45	Wetzel	Grant	Jimmy L & James C. Yoho	44.10
22	12	46	Wetzel	Grant	Jimmy L & James C. Yoho	56.10
23	12	49	Wetzel	Grant	George W. Cain	1.00
24	13	36	Wetzel	Grant	Sara Miller, et al.	49.00
25	13	28	Wetzel	Grant	Kenneth D. Eiford	4.59
26	13	29	Wetzel	Grant	Kenneth D. Eiford	17.50
27	13	19	Wetzel	Grant	Larry D. & Mary A. Huggins	19.25
28	12	35	Wetzel	Grant	H. G. Kirkpatrick Est	49.50
29	12	42	Wetzel	Grant	Jimmy L & James C. Yoho	103.30

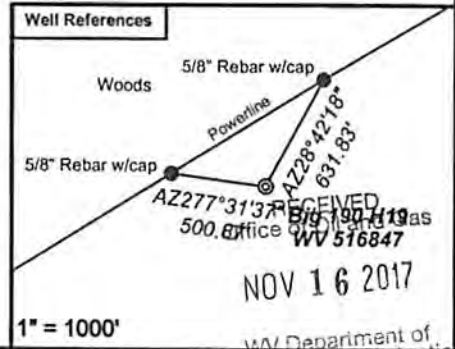
WV 516847 Bottom Hole coordinates are
 NAD 27 N: 391,627.92 E: 1,688,316.41
 NAD 83 UTM N: 4,380,114.56 E: 533,886.16
 West Virginia Coordinate system of 1927 (North Zone)
 based upon Differential GPS Measurements.
 Plat orientation, corner and well ties are based upon
 the grid north meridian.
 Well location references are based upon the grid north
 meridian.
 UTM coordinates are NAD83, Zone 17, Meters.

Big 190	
H22, 516850	●
H21, 516849	●
H20, 516848	●
H19, 516847	●
47-103-02727	●
47-103-02728	●
47-103-02729	●
47-103-02730	●
47-103-02731	●
47-103-02732	●
47-103-02733	●
47-103-02734	●
47-103-02735	●
47-103-02736	●
47-103-02856	●

Lease No.	Acres	Owner
300607	99	ET Blue Grass LLC, et al.
988625	87.5	Jeffrey Scott Cozart, et al.
993343	50	Mary R. Huggins, et al.
993291	74.5	Mary Margaret Price & James G. Price, et al.
994536	49.5	Gary Leigh Wright, et al.

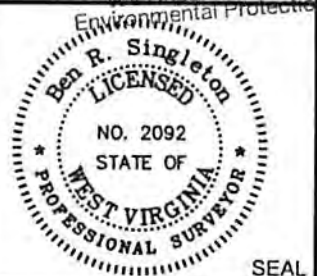


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516847 47-103-03166-0000 - Perforations

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Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
Initiation Sleeve					
1	7/28/2017	14,103	14,260	40	MARCELLUS
2	8/13/2017	13,903	14,065	40	MARCELLUS
3	8/13/2017	13,703	13,865	40	MARCELLUS
4	8/14/2017	13,503	13,665	40	MARCELLUS
5	8/14/2017	13,303	13,465	40	MARCELLUS
6	8/14/2017	13,103	13,265	40	MARCELLUS
7	8/15/2017	12,903	13,065	40	MARCELLUS
8	8/15/2017	12,703	12,865	40	MARCELLUS
9	8/15/2017	12,500	12,665	40	MARCELLUS
10	8/16/2017	12,303	12,467	40	MARCELLUS
11	8/16/2017	12,103	12,265	40	MARCELLUS
12	8/16/2017	11,903	12,065	40	MARCELLUS
13	8/17/2017	11,703	11,865	40	MARCELLUS
14	8/17/2017	11,505	11,665	40	MARCELLUS
15	8/17/2017	11,303	11,465	40	MARCELLUS
16	8/18/2017	11,103	11,265	40	MARCELLUS
17	8/18/2017	10,903	11,065	40	MARCELLUS
18	8/18/2017	10,703	10,865	40	MARCELLUS
19	8/19/2017	10,503	10,641	40	MARCELLUS
20	8/19/2017	10,303	10,467	40	MARCELLUS
21	8/19/2017	10,103	10,265	40	MARCELLUS
22	8/20/2017	9,906	10,065	40	MARCELLUS
23	8/20/2017	9,703	9,865	40	MARCELLUS
24	8/20/2017	9,503	9,662	40	MARCELLUS
25	8/21/2017	9,303	9,462	40	MARCELLUS
26	8/21/2017	9,103	9,265	40	MARCELLUS
27	8/21/2017	8,903	9,065	40	MARCELLUS
28	8/22/2017	8,705	8,865	40	MARCELLUS
29	8/22/2017	8,503	8,665	40	MARCELLUS

516847 47-103-03166-0000 - Stimulated Stages

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)
Initiation Sleeve								0
1	7/28/2017	97	8,879	9,112	4,203	450,480	7,268	0
2	8/13/2017	100	8,996	9,392	4,706	450,145	7,680	0
3	8/13/2017	83	9,017	9,543	4,652	450,300	9,240	0
4	8/14/2017	99	9,021	9,431	4,552	452,960	7,804	0
5	8/14/2017	100	8,721	9,170	4,539	450,660	7,624	0
6	8/14/2017	100	8,831	9,214	4,518	450,460	7,725	0
7	8/15/2017	98	8,552	8,704	4,422	454,960	7,473	0
8	8/15/2017	100	8,794	9,181	5,074	450,600	7,442	0
9	8/15/2017	100	8,793	9,099	4,823	450,600	8,513	0
10	8/16/2017	101	8,695	9,102	4,560	450,480	7,354	0
11	8/16/2017	100	8,761	9,211	4,515	450,600	7,346	0
12	8/16/2017	100	8,867	9,215	3,954	449,740	7,482	0
13	8/17/2017	99	8,796	9,336	4,028	450,120	7,947	0
14	8/17/2017	100	8,920	9,195	4,389	450,780	7,401	0
15	8/17/2017	100	8,635	9,046	4,242	450,080	7,467	0
16	8/18/2017	99	8,571	9,464	4,333	450,660	7,329	0
17	8/18/2017	99	8,533	9,025	4,355	450,580	7,192	0
18	8/18/2017	99	8,403	8,630	4,446	450,480	9,247	0
19	8/19/2017	100	8,597	8,783	4,985	450,740	7,550	0
20	8/19/2017	100	8,382	8,547	4,333	450,240	7,207	0
21	8/19/2017	100	8,036	8,329	4,216	449,640	7,440	0
22	8/20/2017	100	8,269	8,466	4,365	450,360	7,236	0
23	8/20/2017	100	8,253	8,537	4,281	450,960	7,197	0
24	8/20/2017	100	8,058	8,350	4,072	451,460	7,201	0
25	8/21/2017	100	8,101	8,400	4,340	450,920	7,163	0
26	8/21/2017	100	8,170	8,672	4,580	450,860	7,262	0
27	8/21/2017	101	8,123	8,628	4,373	449,140	7,202	0
28	8/22/2017	100	8,191	8,523	4,561	450,740	7,080	0
29	8/22/2017	100	7,983	8,517	4,304	450,680	7,046	0

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 State of Texas
 Department of Environmental Protection

Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	8/13/2017
Job End Date:	8/22/2017
State:	West Virginia
County:	Wetzel
API Number:	47-103-03166-00-00
Operator Name:	EQT Production
Well Name and Number:	516847
Latitude:	39.55244900
Longitude:	-80.60575900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,555
Total Base Water Volume (gal):	9,202,956
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	Keane	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	85.18891	None
Other Chemical (s)	Listed Above	See Trade Name (s) List					
			Water	7732-18-5	50.00000	0.03335	

MC MX 8-2544	Multi-Chem Group	Live Culture - Nitrate Reducing Bacteria					
			Water	7732-18-5	50.00000	0.03335	None
KAI-12	Keane	Acid Corrosion Inhibitor					
				Listed Below			
KFR-23	Keane	Friction Reducer					
				Listed Below			
KSI-19	Keane	Scale Inhibitor					
				Listed Below			
KWG-111L	Keane	Gel					
				Listed Below			
KWBO-2	Keane	Gel Breaker					
				Listed Below			
Hydrochloric Acid (15%)	Keane	Acidizing					
				Listed Below			
MC MX 5-3886	Multi-Chem Group	Specialty Brine					
				Listed Below			
Sand (Proppant)	Keane	Proppant					

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				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Silica Substrate	14808-60-7	100.00000	14.49836	None
			Calcium nitrate.4H2O	13477-34-4	100.00000	0.06182	
			Calcium nitrate.4H2O	13477-34-4	100.00000	0.06182	None
			Hydrochloric Acid	7647-01-0	15.00000	0.02315	None
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.01334	
			copolymer of 2-propenamamide	69418-26-4	20.00000	0.01334	
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.01334	None
			copolymer of 2-propenamamide	69418-26-4	20.00000	0.01334	None
			Methanol	67-56-1	30.00000	0.00621	None
			Methanol	67-56-1	30.00000	0.00621	
			Solvent Naphtha (petroleum) heavy aliph	64742-96-7	60.00000	0.00399	None
			Guar Gum	9000-30-0	60.00000	0.00399	None
			Guar Gum	9000-30-0	60.00000	0.00399	
			Solvent Naphtha (petroleum) heavy aliph	64742-96-7	60.00000	0.00399	
			oleic acid diethanolamide	93-83-4	2.00000	0.00133	
			oleic acid diethanolamide	93-83-4	2.00000	0.00133	None
			alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00133	None
			alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00133	
			Sodium chloride	7647-14-5	100.00000	0.00120	None
			Sodium chloride	7647-14-5	100.00000	0.00120	
			Sodium Persulfate	7775-27-1	99.00000	0.00108	None
			Sodium Persulfate	7775-27-1	99.00000	0.00108	
			Trade Secret	Proprietary	10.00000	0.00066	None
			Trade Secret	Proprietary	10.00000	0.00066	

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Mental Protection

			Methanol	67-56-1	90.00000	0.00021	None
			Sodium nitrate	7631-99-4	5.00000	0.00006	None
			Sodium nitrate	7631-99-4	5.00000	0.00006	None
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00001	None
			Xylene	1330-20-7	5.00000	0.00001	None
			Fatty Imidazoline	61790-69-0	5.00000	0.00001	None
			Prop-2-yn-1-ol	107-19-7	5.00000	0.00001	None
			Isoproyl Alcohol	67-63-0	5.00000	0.00001	None
			Ethylbenzene	100-41-4	1.00000	0.00000	None

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* 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)

WV 516847
EQT Production Company
Mills-Wetzel Land, Inc.
659 Acres

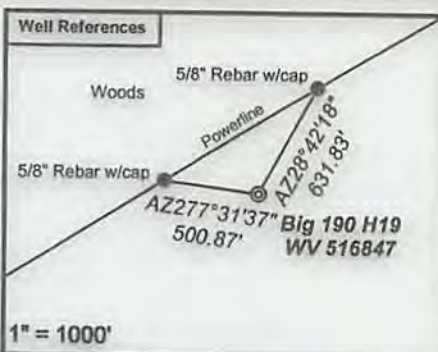
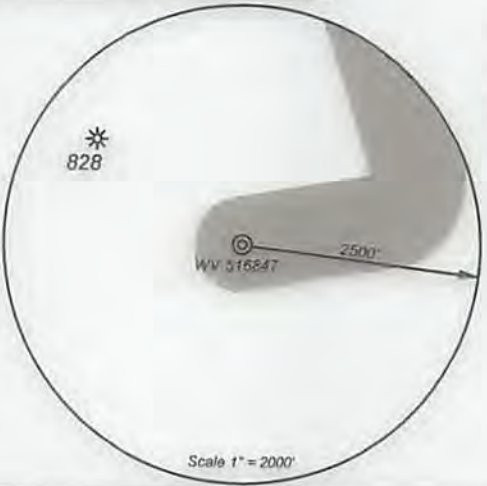
As-Drilled Well Information:
WV 516847 coordinates are
 NAD 27 N: 385,242.81 E: 1,688,212.17
 NAD 83 UTM N: 4,378,168.74 E: 533,886.80
WV 516847 Landing Point coordinates are
 NAD 27 N: 386,195.41 E: 1,689,964.94
 NAD 83 UTM N: 4,378,467.89 E: 534,415.97
WV 516847 Bottom Hole coordinates are
 NAD 27 N: 391,627.92 E: 1,688,316.41
 NAD 83 UTM N: 4,380,114.56 E: 533,886.16
 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	17	14	Wetzel	Grant	Coastal Forest Resources Co.	1627.60
2	13	46	Wetzel	Grant	Burl Henthorn Est, et al.	99.00
3	12	47	Wetzel	Grant	Coastal Forest Resources Co.	87.50
4	13	35	Wetzel	Grant	Jennie B. Goddard, et al.	50.00
5	12	43	Wetzel	Grant	Jennie B. Goddard, et al.	74.50
6	18	1	Wetzel	Grant	McKinley E. Calvert Heirs	100.00
7	18	14	Wetzel	Grant	Frank M. & Frankie L. Dulaney	9.55
8	18	13	Wetzel	Grant	Ralph G. Dulaney	87.50
9	18	17	Wetzel	Grant	Alan D. & Diana L. Barr	13.00
10	18	22	Wetzel	Grant	Karen R. Dennison, et al.	111.40
11	23	5	Wetzel	Grant	Thomas E. Wyatt, et al.	174.68
12	23	4	Wetzel	Grant	Dallison Lumber Inc.	36.10
13	23	2	Wetzel	Grant	Billy D. Arnolds, Jr.	38.80
14	23	1	Wetzel	Grant	Billy D. Arnolds, Jr.	16.50
15	22	27	Wetzel	Grant	Dallison Lumber Inc.	31.35
16	22	13	Wetzel	Grant	James Jones, et al.	16.75
17	17	16	Wetzel	Grant	David A. Arnolds	402.61
18	17	13	Wetzel	Grant	David A. Arnolds	62.25
19	17	12	Wetzel	Grant	Rhonda K. Spencer	57.20
20	17	4	Wetzel	Grant	George W. Cain	42.60
21	12	45	Wetzel	Grant	Jimmy L & James C. Yoho	44.10
22	12	46	Wetzel	Grant	Jimmy L & James C. Yoho	56.10
23	12	49	Wetzel	Grant	George W. Cain	1.00
24	13	36	Wetzel	Grant	Sara Miller, et al.	49.00
25	13	28	Wetzel	Grant	Kenneth D. Eiford	4.59
26	13	29	Wetzel	Grant	Kenneth D. Eiford	17.50
27	13	19	Wetzel	Grant	Larry D. & Mary A. Huggins	19.25
28	12	35	Wetzel	Grant	H. G. Kirkpatrick Est	49.50
29	12	42	Wetzel	Grant	Jimmy L & James C. Yoho	103.30

Big 190

H22, 516850	●
H21, 516849	●
H20, 516848	●
H19, 516847	●
47-103-02727	●
47-103-02728	●
47-103-02729	●
47-103-02730	●
47-103-02731	●
47-103-02732	●
47-103-02733	●
47-103-02734	●
47-103-02735	●
47-103-02736	●
47-103-02856	●

Lease No.	Acres	Owner
300607	99	ET Blue Grass LLC, et al.
988625	87.5	Jeffrey Scott Cozart, et al.
993343	50	Mary R. Huggins, et al.
993291	74.5	Mary Margaret Price & James G. Price, et al.
994536	49.5	Gary Leigh Wright, et al.



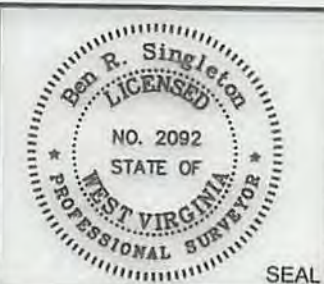
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route



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 B. Singleton

P.S. 2092



FILE NO: 196-34-G-10
 DRAWING NO: 196-10 Big 190 H19
 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 2, 2017
 OPERATOR'S WELL NO.: 516847
 API WELL NO: 47-103-03166
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1473.5' (As-built) WATERSHED: Upper Run and North Fork QUADRANGLE: Big Run
 DISTRICT: Grant COUNTY: Wetzel
 SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 659
 ROYALTY OWNER: Mills-Wetzel Land, Inc. LEASE NO: 988530 ACREAGE: 659
 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: 7,572
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray
 ADDRESS: 115 Professional Place PO Box 280 Bridgeport, WV 26330 ADDRESS: 115 Professional Place PO Box 280 Bridgeport, WV 26330

