

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 516850

API: 47 - 103 - 03169

Submission: Initial Amended

Notes: Initial report w/ flowback

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Office of Oil and Gas
NOV - 3 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 - 03169 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 516850
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 4,378,177.86 Easting 533,887.41
Landing Point of Curve Northing 4,378,426.76 Easting 535,170.85
Bottom Hole Northing 4,379,423.70 Easting 534,832.21

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 14.4 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 01/09/2017 Date drilling commenced 03/12/2017 Date drilling ceased 05/29/2017
Date completion activities began 07/31/2017 Date completion activities ceased 08/10/2017
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

APPROVED

NAME: [Signature]
DATE: 11-14-17

Reviewed by: [Signature]

02/16/2018

API 47-103 - 03169

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Well number 516850

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"	1280'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-3/8"/12-1/4"	9-5/8"	2731'	NEW	A-500 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8 1/2"	5 1/2"	14679'	NEW	P-100 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 5425' 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	57.82	0	8
Surface	CLASS A	1050	15.6	1.18	1239.00	0	8
Coal							
Intermediate 1	Class A	990	15.6	1.18	1168.20	0	8
Intermediate 2							
Intermediate 3							
Production	Class A / Class H	1150 / 510	15.2 / 15.6	1.16 / 2.10	2405	5425	8
Tubing							

Drillers TD (ft) 14692 Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5400' 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 5323'

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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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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
					Please See Attached

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)
								See Attached

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>7577'</u> TVD	<u>10800'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3,330 psi Bottom Hole N/A psi DURATION OF TEST 78.50 hrs

OPEN FLOW Gas Oil NGL Water GAS MEASURED BY

9,695 mcfpd N/A bpd 0 bpd 463 bpd Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Savanna Drilling
Address 125 Industry Road City Waynesburg State PA Zip 15370

Logging Company Gyrodata Inc.
Address 601 Mayer St. City Bridgeville State PA Zip 15017

Cementing Company Halliburton Energy Services
Address 121 Champion Way City Canonsburg State PA Zip 15310

Stimulating Company Keane
Address 1245 Old Route 119 City Mount Pleasant State PA Zip 15666

Please insert additional pages as applicable.

Completed by James Abbott Telephone (412) 553-5996
Signature Title Dir Completions Date 11/2/2017

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

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API 47- 103 - 03169 Farm name Coastal Forest Resources Co. DBA Coastal Timberlands Co. Well number 516850

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

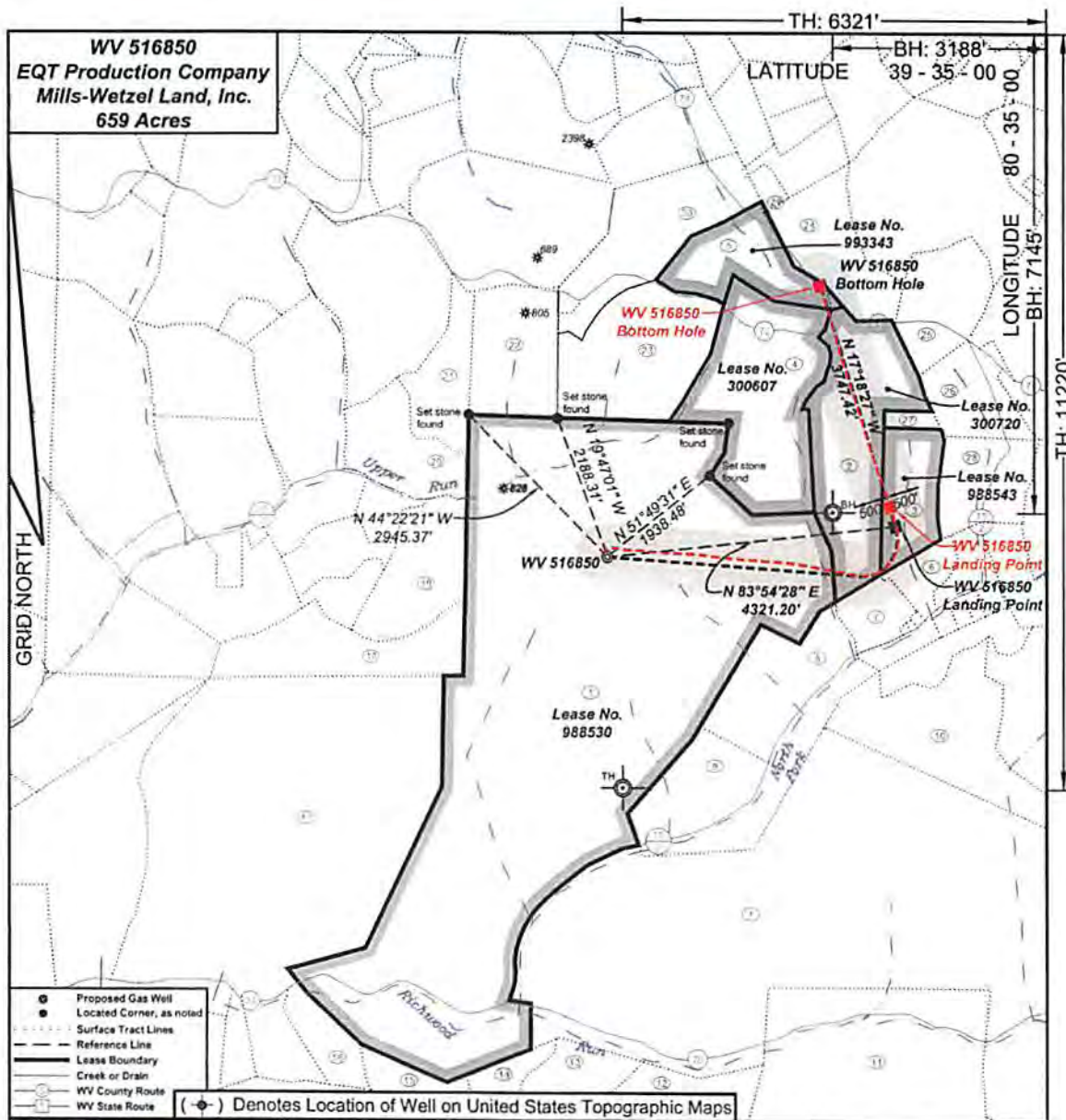
Cementing Company _____
Address _____ City _____ State _____ Zip _____

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Well #516850 Final Formations API# 47-103-03169

Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
SAND/SHALE	1	1	744	744
WASHINGTON COAL	744	744	747	747
SAND/SHALE	747	747	867	867
WAYNESBURG COAL	867	867	869	869
SAND/SHALE	869	869	1058	1058
COAL	1058	1058	1063	1063
SAND/SHALE	1063	1063	1209	1209
PITTSBURGH COAL	1209	1209	1215	1215
SAND/SHALE	1215	1215	2272	2269
MAXTON	2272	2269	2350	2346
SAND/SHALE	2350	2346	2428	2424
BIG LIME	2428	2424	2542	2537
SAND/SHALE	2542	2537	2557	2552
BIG INJUN	2557	2552	2663	2658
SAND/SHALE	2663	2658	2834	2829
WEIR	2834	2829	2891	2886
SAND/SHALE	2891	2886	3002	2997
GANTZ	3002	2997	3037	3032
50F	3037	3032	3078	3073
SAND/SHALE	3078	3073	3132	3127
THIRTY FOOT	3132	3127	3163	3158
SAND/SHALE	3163	3158	3277	3272
GORDON	3277	3272	3277	3272
SAND/SHALE	3277	3272	3350	3345
FOURTH SAND	3350	3345	3391	3386
SAND/SHALE	3391	3386	3507	3502
BAYARD	3507	3502	3540	3535
SAND/SHALE	3540	3535	3886	3881
WARREN	3886	3881	3897	3892
SAND/SHALE	3897	3892	4087	4082
SPEECHLEY	4087	4082	4215	4210
SAND/SHALE	4215	4210	4458	4453
BALLTOWN A	4458	4453	4590	4585
SAND/SHALE	4590	4585	4915	4910
RILEY	4915	4910	4968	4963
SAND/SHALE	4968	4963	5559	5551
BENSON	5559	5551	5639	5627
SAND/SHALE	5639	5627	5934	5875
ALEXANDER	5934	5875	5974	5905
ELKS	5974	5905	9470	7163
SONYEA	9470	7163	9845	7305
MIDDLESEX	9845	7305	10020	7362
GENESEEE	10020	7362	10268	7442
GENESEEO	10268	7442	10353	7467
TULLY	10353	7467	10421	7487
HAMILTON	10421	7487	10800	7577
MARCELLUS	10800	7577	14692	7557

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- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
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() 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: 196-34-G-10
 DRAWING NO: 196-10 Big 190 H22
 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 27 20 17
 OPERATOR'S WELL NO.: 516850
 API WELL NO
 47 - 103 - 03169
 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: 1636.5
 ROYALTY OWNER: Mills-Wetzel Land, Inc. LEASE NO: 988530 ACREAGE: 659
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7.558

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280
 Bridgeport, WV 26330 Bridgeport, WV 26330

02/16/2018

WV 516850
EQT Production Company
Mills-Wetzel Land, Inc.
659 Acres

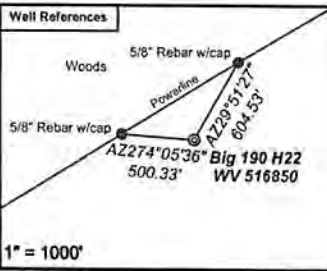
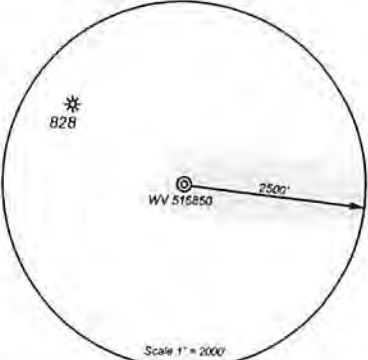
Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	17	14	Wetzel	Grant	Coastal Forest Resources Co.	1627.60
2	18	1	Wetzel	Grant	McKinley E. Calvert Heirs	100.00
3	18	6	Wetzel	Grant	Dwight Beckett	37.00
4	13	46	Wetzel	Grant	Burl Henthorn Est, et al.	99.00
5	13	35	Wetzel	Grant	Jennie B. Goddard, et al.	50.00
6	18	17	Wetzel	Grant	Alan D. & Diana L. Barr	13.00
7	18	14	Wetzel	Grant	Frank M. & Frankie L. DuLaney	9.55
8	18	13	Wetzel	Grant	Ralph G. DuLaney	87.50
9	17	17	Wetzel	Grant	Earl J. & Gloria Reese	72.00
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	Dalison 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	Dalison 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	52.75
19	17	12	Wetzel	Grant	Rhonda K. Spencer	57.20
20	17	4	Wetzel	Grant	George W. Gain	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	47	Wetzel	Grant	Coastal Forest Resources Co.	87.50
24	13	36	Wetzel	Grant	Sara Miller, et al.	49.00
25	13	37	Wetzel	Grant	Lydle Martin	16.00
26	18	3	Wetzel	Grant	Lydle Martin	32.25
27	18	2	Wetzel	Grant	Frederick Jewell, et al.	4.66
28	18	7	Wetzel	Grant	William R. & Joey J. Work	46.47
29	13	28	Wetzel	Grant	Kenneth D. Eiford	4.59
30	12	43	Wetzel	Grant	Jennie B. Goddard, et al.	74.50

As-Drilled Well Information:
WV 516850 coordinates are
 NAD 27 N: 385,272.70 E: 1,638,214.68
 NAD 83 UTM N: 4,376,177.66 E: 533,887.41
WV 516850 Landing Point coordinates are
 NAD 27 N: 386,019.04 E: 1,692,439.73
 NAD 83 UTM N: 4,378,426.76 E: 535,170.85
WV 516850 Bottom Hole coordinates are
 NAD 27 N: 389,309.01 E: 1,691,383.00
 NAD 83 UTM N: 4,379,423.70 E: 534,832.21
 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, Meter.

Big 190

H22, 516850	●
H21, 516849	●
H20, 516848	●
H19, 516847	●
47-103-03109	●
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
300720	103	Lois A. Dennis, et al.
988543	297.5	Shiben Estates, Inc.
300607	99	ET Blue Grass LLC, et al.
993343	50	Mary R. Huggins, et al.



- Proposed Gas Well
- Located Corner, as noted
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- - - Reference Line
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Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	7/31/2017
Job End Date:	8/10/2017
State:	West Virginia
County:	Wetzel
API Number:	47-103-03169-00-00
Operator Name:	EQT Production
Well Name and Number:	516850
Latitude:	39.55253100
Longitude:	-80.60575100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,577
Total Base Water Volume (gal):	6,500,466
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	87.26873	None
KFR-23	Keane	Friction Reducer					
			Water	7732-18-5	50.00000	0.00132	None

MC MX 5-3886	Multi-Chem Group	Specialty Brine					
				Listed Below			
Sand (Proppant)	Keane	Proppant					
				Listed Below			
KSI-19	Keane	Scale Inhibitor					
				Listed Below			
KAI-12	Keane	Acid Corrosion Inhibitor					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				Listed Below			
MC MX 8-2544	Multi-Chem Group	Live Culture - Nitrate Reducing Bacteria					
				Listed Below			
Hydrochloric Acid (15%)	Keane	Acidizing					
				Listed Below			

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Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Silica Substrate	14808-60-7	100.00000	11.89020	None
			Hydrochloric Acid	7647-01-0	15.00000	0.08914	None
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.05280	None
			Ammonium Chloride	12125-02-9	1.50000	0.01760	None

			Glutaral	111-30-8	26.70000	0.00246	
			Distillates (petroleum), hydrotreated light	64742-47-8	20.00000	0.00132	None
			copolymer of 2-propenamide	69418-26-4	20.00000	0.00088	None
			alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00082	None
			alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00082	
			Didecyldimethylammonium Chloride	7173-51-5	8.00000	0.00073	
			Quaternary Ammonium Compounds, Benzyl-C12-16-alkyldimethyl, Chlorides	68424-85-1	5.30000	0.00049	
			Ethanol	64-17-5	2.80000	0.00026	
			Sodium chloride	7647-14-5	100.00000	0.00005	None
			oleic acid diethanolamide	93-83-4	2.00000	0.00005	None
			Calcium nitrate.4H2O	13477-34-4	100.00000	0.00005	
			Calcium nitrate.4H2O	13477-34-4	100.00000	0.00005	None
			Sodium nitrate	7631-99-4	5.00000	0.00005	
			oleic acid diethanolamide	93-83-4	2.00000	0.00005	
			Sodium chloride	7647-14-5	100.00000	0.00005	
			Sodium nitrate	7631-99-4	5.00000	0.00005	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)

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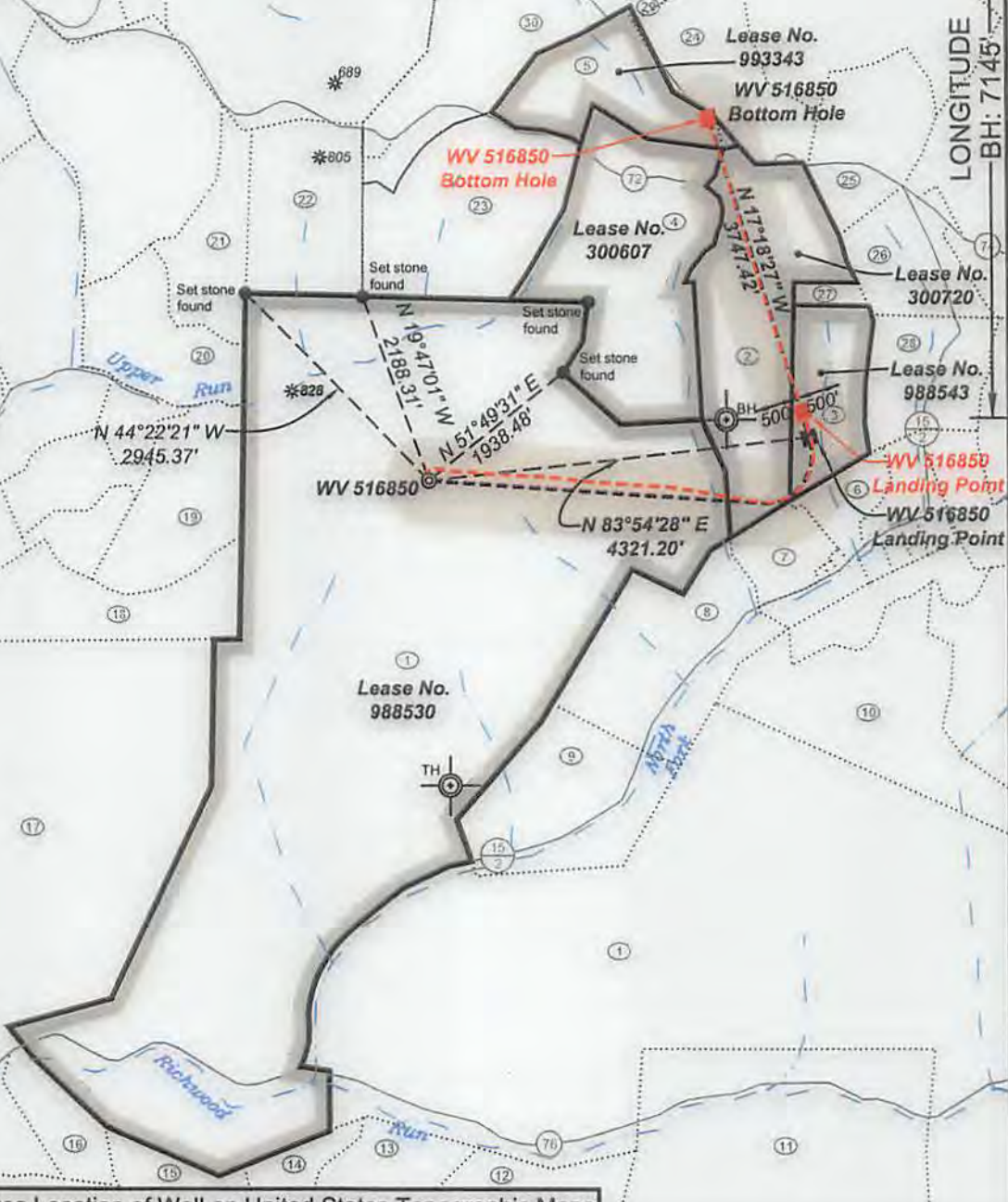
TH: 6321'
 BH: 3188'
 LATITUDE 39 - 35 - 00

LONGITUDE 80 - 35 - 00
 BH: 7145'

GRID NORTH

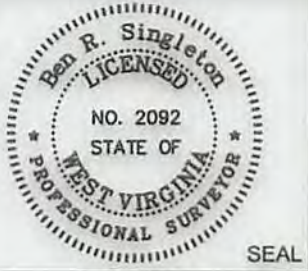
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 DISTRICT: Grant COUNTY: Wetzel
 SURFACE OWNER: Coastal Forest Resources Company d/b/a Coastal Timberlands Company ACREAGE: 659
 ROYALTY OWNER: Mills-Wetzel Land, Inc. LEASE NO: 988530 ACREAGE: 659
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE 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: 7,558

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280
 Bridgeport, WV 26330 Bridgeport, WV 26330

02/16/2018

WV 516850
EQT Production Company
Mills-Wetzel Land, Inc.
659 Acres

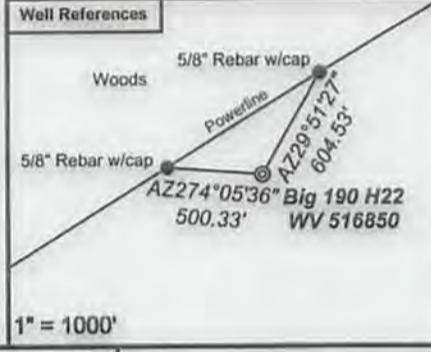
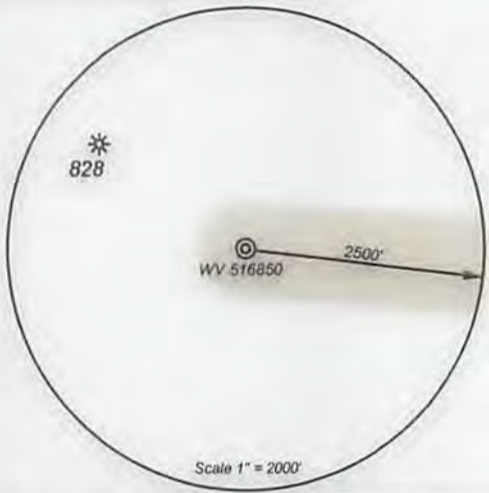
As-Drilled Well Information:
WV 516850 coordinates are
 NAD 27 N: 385,272.70 E: 1,688,214.68
 NAD 83 UTM N: 4,378,177.86 E: 533,887.41
WV 516850 Landing Point coordinates are
 NAD 27 N: 386,019.04 E: 1,692,439.73
 NAD 83 UTM N: 4,378,426.76 E: 535,170.85
WV 516850 Bottom Hole coordinates are
 NAD 27 N: 389,309.01 E: 1,691,383.00
 NAD 83 UTM N: 4,379,423.70 E: 534,832.21
 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	18	1	Wetzel	Grant	McKinley E. Calvert Heirs	100.00
3	18	6	Wetzel	Grant	Dwight Beckett	37.00
4	13	46	Wetzel	Grant	Burl Henthorn Est, et al.	99.00
5	13	35	Wetzel	Grant	Jennie B. Goddard, et al.	50.00
6	18	17	Wetzel	Grant	Alan D. & Diana L. Barr	13.00
7	18	14	Wetzel	Grant	Frank M. & Frankie L. Dulaney	9.55
8	18	13	Wetzel	Grant	Ralph G. Dulaney	87.50
9	17	17	Wetzel	Grant	Earl J. & Gloria Reese	72.00
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	47	Wetzel	Grant	Coastal Forest Resources Co.	87.50
24	13	36	Wetzel	Grant	Sara Miller, et al.	49.00
25	13	37	Wetzel	Grant	Lydle Martin	16.00
26	18	3	Wetzel	Grant	Lydle Martin	32.25
27	18	2	Wetzel	Grant	Frederick Jewell, et.al	4.66
28	18	7	Wetzel	Grant	William R. & Joey J. Work	46.47
29	13	28	Wetzel	Grant	Kenneth D. Eiford	4.59
30	12	43	Wetzel	Grant	Jennie B. Goddard, et al.	74.50

Big 190

H22, 516850	●
H21, 516849	●
H20, 516848	● 47-103-03109
H19, 516847	●
47-103-02727	● 47-103-03020
47-103-02728	● 47-103-03021
47-103-02729	● 47-103-03022
47-103-02730	● 47-103-03023
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
300720	103	Lois A. Dennis, et al.
988543	297.5	Shiben Estates, Inc.
300607	99	ET Blue Grass LLC, et al.
993343	50	Mary R. Huggins, et al.

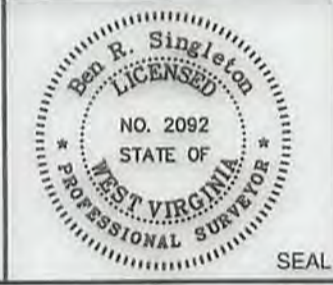


- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route



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 R. Singleton
 P.S. 2092



FILE NO: 196-34-G-10
 DRAWING NO: 196-10 Big 190 H22
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: June 27 20 17
 OPERATOR'S WELL NO.: 516850
 API WELL NO
 47 - 103 - 03169
 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
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