

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

API 47-103-03189 County Wetzel District Grant
Quad Big Run 7.5 Pad Name BIG177 Field/Pool Name _____
Farm name Coastal Forest Resources DBA Coastal Timberlands Co Well Number BIG177H5
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 4,381,510.506 Easting 535,730.872
Landing Point of Curve Northing 4,381,888.486 Easting 534,783.378
Bottom Hole Northing 4,384,002.146 Easting 533,585.766

Elevation (ft) 811' 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 13.2 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 6/5/2017 Date drilling commenced 12/21/2017 Date drilling ceased 1/5/2018
Date completion activities began 2/28/2018 Date completion activities ceased 3/27/2018
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 183', 293', 493', 643' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,148', 1,463' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 113', 166', 444', 554' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Dmit

Reviewed

(Handwritten signature)

API 47-103 - 03189

Farm name Coastal Forest Resources DBA Coastal Timberlands Co

Well number BIG177H5

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"	80'	NEW	A-500	N/A	Y
Fresh Water	17 1/2"	13 3/8"	780'	NEW	J-55	N/A	Y
Surface							
Intermediate 1	12 3/8"	9 5/8"	2733'	NEW	A-500	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5-1/2"	16,133'	NEW	P-110	N/A	N
Tubing							
Packer type and depth set							

Comment Details _____

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	200	15.6	1.18	236	0	8
Fresh Water	Class A	1011	15.6	1.20	1213	0	8
Surface							
Intermediate 1	Class A / Class A	391 / 626	15.6 / 16.4	1.18 / 1.08	1137	0	8
Intermediate 2							
Intermediate 3							
Production	Class H / Class H	482 / 1010	15.2 / 15.6	1.25 / 2.06	2885	5600	72+
Tubing							

Drillers TD (ft) 18,141' Loggers TD (ft) N/A
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 2803'

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

FRESH WATER: 4 CENTRALIZERS Every 500' and on shoe track

INTERMEDIATE: 8 CENTRALIZERS AT EVERY 500'

PRODUCTION: Composite body spiral centralizers run every joint from 16,121 to 2759'

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 - 03189 Farm name Coastal Forest Resources DBA Coastal Timberlands Co Well number BIG177H5

Drilling Contractor Pioneer Drilling Rig 72
Address 1083 N Eighty Eight Rd City Rices Landing State PA Zip 15357

Logging Company Gyro Data Inc.
Address 601 Maver St. City Bridgeville State PA Zip 15017

Logging Company Baker Hughes
Address 400 Technology Drive City Canonsburg State PA Zip 15317

Cementing Company BJ Services
Address 2228 Philippi Pike City Clarksburg State WV Zip 26301

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BIG177 Well 512917 Final Formations API: 47-103-03189

Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
SAND/SHALE	1	1	113	113
COAL	113	113	116	116
SAND/SHALE	116	116	166	166
WAYNESBURG	166	166	170	170
SAND/SHALE	170	170	444	444
MAPLETOWN	444	444	448	448
SAND/SHALE	448	448	554	554
PITTSBURGH	554	554	561	561
SAND/SHALE	561	561	1705	1704
MAXTON	1705	1704	1749	1748
SAND/SHALE	1749	1748	1821	1820
BIG LIME	1821	1820	1874	1873
SAND/SHALE	1874	1873	2203	2201
WEIR	2203	2201	2231	2229
SAND/SHALE	2231	2229	2377	2375
GANTZ	2377	2375	2415	2413
SAND/SHALE	2415	2413	2528	2526
50F	2528	2526	2573	2571
SAND/SHALE	2573	2571	2599	2597
30F	2599	2597	2633	2631
SAND/SHALE	2633	2631	2646	2644
GORDON	2646	2644	2691	2689
SAND/SHALE	2691	2689	2733	2731
4TH SAND	2733	2731	2744	2742
SAND/SHALE	2744	2742	2785	2783
BAYARD	2785	2783	2858	2856
SAND/SHALE	2858	2856	3242	3215
WARREN	3242	3215	3288	3252
SAND/SHALE	3288	3252	3392	3332
SPEECHLEY	3392	3332	3406	3342
SAND/SHALE	3406	3342	3781	3635
BALLTOWN A	3781	3635	3798	3648
SAND/SHALE	3798	3648	4241	3997
RILEY	4241	3997	4254	4007
SAND/SHALE	4254	4007	4893	4510
BENSON	4893	4510	5241	4790
ALEXANDER	5241	4790	7276	6382
SONYEA	7276	6382	7476	6539
MIDDLESEX	7476	6539	7539	6588
GENESEE	7539	6588	7655	6671
GENESEO	7655	6671	7689	6693
TULLY	7689	6693	7723	6714
HAMILTON	7723	6714	7940	6808
MARCELLUS	7940	6808	16141	6787

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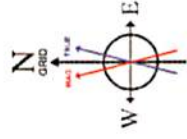
Location: Wetzel County, WV
 Field: Wetzel
 Facility: Big 177 Pad

API: 47-103-03189
 Slot: Slot 512917
 Well: Big 177 H5
 Wellbore: Big 177 H5 PWB

True Vertical Depth (ft)	0	1000	2000	3000	4000	5000	6000	7000	8000	9000
Easting (ft)	-8000	-7000	-6000	-5000	-4000	-3000	-2000	-1000	0	1000

Location Information			
Facility Name	Grid East (US ft)	Latitude	Longitude
Big 177 Pad	1694484.910	39°34'57.170"N	80°35'02.331"W
Slot	Local N (ft)	Grid East (US ft)	Longitude
Slot 512917	-22.66	39°34'56.941"N	80°35'02.826"W
Pioneer 72 (RKB) to Mud line (At Slot: Slot 512917)	23ft		
Mean Sea Level to Mud line (At Slot: Slot 512917)	-811ft		
Pioneer 72 (RKB) to Mean Sea Level	834ft		

Gyrodata MS Gyro <17-112> : 0.47° Inc. 100.00ft MD. 100.00ft TVD. 0.16ft VS
 SDI MWD <12-1/4> : (736)(821-2703) : 0.79° Inc. 821.00ft MD. 820.85ft TVD. 4.35ft VS
 SDI MWD <8-3/4> : (2703)(2776-5399) : 0.50° Inc. 2776.00ft MD. 2773.74ft TVD. 70.90ft VS



User specified (HOGM) Dip: 66.88° Field: 52368 nT
 Magnetic North is 8.32 degrees West of True North (at 31/Dec/2017)
 Grid North is 0.69 degrees West of True North
 To correct azimuth from True to Grid add 0.69 degrees
 To correct azimuth from Magnetic to Grid subtract 7.63 degrees

API: 47-103-03189-0000
 BH Job #: 8929565
 Rig: Pioneer 72
 Duration: 1/1/2018-1/5/2018

BH AT Curve <8-12> : (5399)(5494-16114) : 37.72° Inc. 5494.00ft MD. 4985.52ft TVD. 1351.21ft VS
 BH AT Curve <8-12> : (5399)(5494-16114) : 4985.52ft TVD. 509.48ft N. 1502.80ft W
 SDI MWD <8-3/4> : (2703)(2776-5399) : 2773.74ft TVD. 34.51ft N. 69.47ft W
 SDI MWD <12-1/4> : (736)(821-2703) : 820.85ft TVD. 12.07ft N. 7.75ft E
 Gyrodata MS Gyro <17-112> : (100-736) : 100.00ft TVD. 0.30ft N. 0.11ft E

Well Profile Data									
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)	
Tie On	5399.00	39.360	289.140	4911.21	489.54	-1447.07	1.82	1300.30	
Prop. To Bottom	5472.00	39.300	289.140	4967.66	504.72	-1490.81	0.00	1339.89	
End of 3D Arc	5511.39	38.313	288.265	4998.34	512.64	-1514.20	3.00	1360.92	
Curve KCP	7515.52	38.313	288.265	6570.84	922.06	-2094.09	0.00	2413.63	
Landing Pt.	8147.89	90.100	331.500	6687.00	1260.59	-3070.06	10.00	2945.00	
Start Drop	11052.51	89.500	331.500	6641.88	3859.58	-4470.34	0.00	5624.22	
Hold 89.5°	11102.51	89.500	331.500	6641.95	3877.16	-4479.89	3.00	5643.84	
BHL	16144.03	89.500	331.500	6685.94	8307.57	-6885.40	0.00	10790.01	

Projected MD at TD: 16141' : 89.57° Inc, 16141.00ft MD, 6876.65ft TVD, 10791.15ft VS
 Vertical Section (ft)
 Azimuth 320.35° with reference 0.00 N, 0.00 E

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Actual Wellpath Report

Big 177 H5 AWP Proj: 16141'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		API: 47-103-03189

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Edsaryar
Scale	0.999941	Report Generated	10/Jan/2018 at 21:07
Convergence at slot	0.69° West	Database/Source file	WA_MPL_EASTERNUS_Defn/Big_177_H5_AWP_Proj_16141_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-22.66	-39.04	1694445.87	396107.38	39°34'56.941"N	80°35'02.826"W
Facility Reference Pt			1694484.91	396130.04	39°34'57.170"N	80°35'02.331"W
Field Reference Pt			1688243.35	385255.46	39°33'08.944"N	80°36'20.337"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Pioneer 72 (RKB) to Facility Vertical Datum	834.00ft
Horizontal Reference Pt	Slot	Pioneer 72 (RKB) to Mean Sea Level	834.00ft
Vertical Reference Pt	Pioneer 72 (RKB)	Pioneer 72 (RKB) to Mud Line at Slot (Slot 512917)	23.00ft
MD Reference Pt	Pioneer 72 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	320.35°

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Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00†	0.000	20.500	0.00	0.00	0.00	0.00	1694445.87	396107.38	39°34'56.941"N	80°35'02.826"W	0.00	0.000	0.00	0.00	0.00
23.00	0.000	20.500	23.00	0.00	0.00	0.00	1694445.87	396107.38	39°34'56.941"N	80°35'02.826"W	0.00	0.000	0.00	0.00	0.00
100.00	0.470	20.500	100.00	0.16	0.30	0.11	1694445.98	396107.68	39°34'56.944"N	80°35'02.825"W	0.32	20.500	0.61	0.61	26.62
200.00	0.580	18.720	199.99	0.63	1.16	0.42	1694446.29	396108.54	39°34'56.953"N	80°35'02.821"W	1.23	19.769	0.11	0.11	-1.78
300.00	1.060	24.480	299.98	1.30	2.48	0.96	1694446.83	396109.86	39°34'56.966"N	80°35'02.814"W	2.66	21.205	0.49	0.48	5.76
400.00	1.330	31.240	399.96	2.08	4.31	1.95	1694447.82	396111.69	39°34'56.984"N	80°35'02.802"W	4.73	24.294	0.30	0.27	6.76
500.00	1.380	35.700	499.93	2.76	6.28	3.25	1694449.12	396113.66	39°34'57.004"N	80°35'02.786"W	7.08	27.360	0.12	0.05	4.46
600.00	1.460	39.620	599.90	3.31	8.24	4.77	1694450.64	396115.62	39°34'57.023"N	80°35'02.767"W	9.52	30.039	0.13	0.08	3.92
700.00	1.370	46.240	699.87	3.63	10.05	6.44	1694452.31	396117.43	39°34'57.042"N	80°35'02.746"W	11.94	32.658	0.19	-0.09	6.62
736.00	1.500	43.740	735.86	3.71	10.69	7.08	1694452.95	396118.07	39°34'57.048"N	80°35'02.738"W	12.82	33.515	0.40	0.36	-6.94
821.00	0.790	349.870	820.85	4.35	12.07	7.75	1694453.62	396119.45	39°34'57.062"N	80°35'02.729"W	14.34	32.688	1.43	-0.84	-63.38
853.00	0.780	316.310	852.84	4.76	12.45	7.56	1694453.43	396119.82	39°34'57.065"N	80°35'02.732"W	14.56	31.265	1.42	-0.03	-104.87
885.00	1.190	298.290	884.84	5.29	12.76	7.11	1694452.98	396120.14	39°34'57.068"N	80°35'02.737"W	14.61	29.138	1.59	1.28	-56.31
916.00	1.760	292.140	915.83	6.00	13.09	6.39	1694452.26	396120.47	39°34'57.072"N	80°35'02.747"W	14.57	26.012	1.91	1.84	-19.84
948.00	2.200	289.330	947.81	6.96	13.48	5.35	1694451.22	396120.86	39°34'57.075"N	80°35'02.760"W	14.51	21.662	1.41	1.38	-8.78
980.00	2.430	288.680	979.78	8.07	13.90	4.13	1694450.00	396121.28	39°34'57.079"N	80°35'02.776"W	14.50	16.554	0.72	0.72	-2.03
1011.00	2.660	288.560	1010.75	9.24	14.34	2.83	1694448.70	396121.72	39°34'57.084"N	80°35'02.792"W	14.62	11.154	0.74	0.74	-0.39
1043.00	2.680	282.860	1042.72	10.46	14.74	1.39	1694447.26	396122.12	39°34'57.087"N	80°35'02.811"W	14.81	5.402	0.83	0.06	-17.81
1138.00	2.560	282.710	1137.62	13.90	15.70	-2.84	1694443.03	396123.08	39°34'57.096"N	80°35'02.865"W	15.96	349.747	0.13	-0.13	-0.16
1233.00	2.770	281.630	1232.52	17.38	16.63	-7.16	1694438.71	396124.01	39°34'57.105"N	80°35'02.920"W	18.11	336.715	0.23	0.22	-1.14
1328.00	2.750	279.220	1327.41	20.88	17.46	-11.66	1694434.21	396124.84	39°34'57.113"N	80°35'02.978"W	21.00	326.276	0.12	-0.02	-2.54
1423.00	2.430	283.550	1422.31	24.21	18.30	-15.86	1694430.01	396125.68	39°34'57.120"N	80°35'03.032"W	24.22	319.078	0.39	-0.34	4.56
1518.00	2.510	286.220	1517.22	27.55	19.35	-19.82	1694426.05	396126.73	39°34'57.130"N	80°35'03.082"W	27.70	314.317	0.15	0.08	2.81
1613.00	2.190	281.680	1612.14	30.69	20.30	-23.59	1694422.28	396127.68	39°34'57.139"N	80°35'03.131"W	31.13	310.709	0.39	-0.34	-4.78
1708.00	2.530	295.800	1707.06	34.01	21.58	-27.26	1694418.61	396128.96	39°34'57.151"N	80°35'03.178"W	34.77	308.368	0.71	0.36	14.86
1803.00	3.390	302.890	1801.93	38.60	24.02	-31.51	1694414.37	396131.40	39°34'57.175"N	80°35'03.232"W	39.62	307.320	0.98	0.91	7.46
1898.00	3.620	297.900	1896.76	44.05	26.95	-36.52	1694409.36	396134.33	39°34'57.203"N	80°35'03.297"W	45.38	306.427	0.40	0.24	-5.25
1993.00	3.950	296.080	1991.55	49.80	29.79	-42.10	1694403.77	396137.17	39°34'57.231"N	80°35'03.369"W	51.58	305.280	0.37	0.35	-1.92
2088.00	4.120	292.720	2086.31	55.81	32.55	-48.19	1694397.68	396139.92	39°34'57.257"N	80°35'03.447"W	58.15	304.033	0.31	0.18	-3.54
2183.00	3.460	288.470	2181.11	61.27	34.77	-54.06	1694391.81	396142.15	39°34'57.279"N	80°35'03.522"W	64.28	302.750	0.75	-0.69	-4.47

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Operator	EQT
Area	Wetzel County, WV
Field	Wetzel
Facility	Big 177 Pad
Wellbore	Big 177 H5 AWP
Well	Big 177 H5
Slot	Slot 512917

WELLPATH DATA (186 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]	[ft]	[ft]	[ft]	[ft]	[ft/100ft]	[ft/100ft]	[°/100ft]
2278.00	2.850	280.940	2275.96	36.13	-69.10	1694386.78	396143.51	1694386.78	396143.51	39°34'57.291"N	80°35'03.587"W	69.27	301.440	0.77	-0.64	-7.93
2372.00	2.390	272.630	2369.86	68.65	-63.35	1694382.53	396144.04	1694382.53	396144.04	39°34'57.296"N	80°35'03.641"W	73.19	300.059	0.63	-0.49	-8.84
2467.00	2.340	268.120	2464.78	71.17	-67.27	1694378.61	396144.07	1694378.61	396144.07	39°34'57.294"N	80°35'03.691"W	76.62	298.610	0.20	-0.05	-4.75
2531.00	0.970	255.240	2528.75	72.20	-69.10	1694376.78	396143.89	1694376.78	396143.89	39°34'57.294"N	80°35'03.714"W	78.15	297.851	2.20	-2.14	-20.13
2562.00	0.850	235.470	2559.75	72.33	-69.54	1694376.34	396143.69	1694376.34	396143.69	39°34'57.292"N	80°35'03.720"W	78.45	297.572	1.08	-0.39	-63.77
2657.00	0.520	164.600	2654.75	71.98	-69.93	1694375.94	396142.90	1694375.94	396142.90	39°34'57.284"N	80°35'03.725"W	78.44	296.928	0.97	-0.35	-85.13
2703.00	0.580	162.250	2700.74	71.56	-69.77	1694376.10	396142.49	1694376.10	396142.49	39°34'57.280"N	80°35'03.723"W	78.11	296.713	0.21	0.13	16.63
2776.00	0.500	142.510	2773.74	70.90	-69.47	1694376.41	396141.89	1694376.41	396141.89	39°34'57.274"N	80°35'03.719"W	77.57	296.416	0.28	-0.11	-27.04
2839.00	0.340	226.080	2836.74	70.61	-69.43	1694376.44	396141.54	1694376.44	396141.54	39°34'57.271"N	80°35'03.718"W	77.38	296.196	0.91	-0.25	132.65
2934.00	8.700	277.900	2931.36	75.90	-76.77	1694369.11	396142.33	1694369.11	396142.33	39°34'57.278"N	80°35'03.812"W	84.35	294.480	8.94	8.80	54.55
3029.00	16.560	285.590	3024.00	92.35	-96.96	1694348.92	396146.96	1694348.92	396146.96	39°34'57.321"N	80°35'04.071"W	104.73	292.210	8.44	8.27	8.09
3124.00	24.510	286.080	3112.89	119.80	-128.98	1694316.89	396156.07	1694316.89	396156.07	39°34'57.407"N	80°35'04.481"W	137.87	290.684	8.37	8.37	0.52
3219.00	33.380	284.100	3195.94	157.24	-173.35	1694272.53	396167.92	1694272.53	396167.92	39°34'57.519"N	80°35'05.050"W	183.62	289.252	9.39	9.34	-2.08
3314.00	40.000	287.710	3272.09	204.08	-227.85	1694218.03	396183.60	1694218.03	396183.60	39°34'57.668"N	80°35'05.748"W	240.26	288.496	7.33	6.97	3.80
3409.00	40.350	288.800	3344.68	256.00	-286.05	1694159.83	396202.79	1694159.83	396202.79	39°34'57.850"N	80°35'06.494"W	301.55	288.447	0.83	0.37	1.15
3504.00	40.340	292.090	3417.09	309.30	-343.66	1694102.23	396224.27	1694102.23	396224.27	39°34'58.056"N	80°35'07.233"W	363.00	288.786	2.24	-0.01	3.46
3599.00	38.940	289.610	3490.25	362.04	-400.28	1694045.61	396245.85	1694045.61	396245.85	39°34'58.262"N	80°35'07.960"W	423.56	289.083	2.22	-1.47	-2.61
3694.00	36.920	288.210	3565.18	411.87	-455.52	1693990.38	396264.79	1693990.38	396264.79	39°34'58.443"N	80°35'08.668"W	481.95	289.064	2.31	-2.13	-1.47
3789.00	37.510	289.950	3640.84	460.98	-509.81	1693936.09	396283.57	1693936.09	396283.57	39°34'58.622"N	80°35'09.364"W	539.40	289.067	1.27	0.62	1.83
3883.00	38.820	288.820	3714.74	510.78	-564.60	1693881.30	396302.84	1693881.30	396302.84	39°34'58.806"N	80°35'10.067"W	597.48	289.097	1.58	-1.20	-1.20
3978.00	38.190	289.060	3789.08	561.26	-620.55	1693825.36	396322.04	1693825.36	396322.04	39°34'58.989"N	80°35'10.844"W	656.63	289.083	0.68	-0.66	0.25
4073.00	38.480	287.670	3863.60	611.23	-676.47	1693769.44	396340.60	1693769.44	396340.60	39°34'59.166"N	80°35'11.501"W	715.55	289.023	0.96	0.31	-1.46
4168.00	37.350	286.750	3938.55	660.11	-732.23	1693713.69	396357.88	1693713.69	396357.88	39°34'59.330"N	80°35'12.216"W	773.89	288.887	1.33	-1.19	-0.97
4263.00	36.690	289.720	4014.41	708.54	-786.54	1693659.38	396375.76	1693659.38	396375.76	39°34'59.500"N	80°35'12.913"W	831.07	288.841	2.01	-0.69	3.13
4358.00	37.650	288.200	4090.11	757.81	-840.65	1693605.27	396394.90	1693605.27	396394.90	39°34'59.683"N	80°35'13.607"W	888.47	288.883	1.05	1.01	-0.49
4453.00	38.660	288.200	4164.81	807.78	-896.23	1693549.69	396413.73	1693549.69	396413.73	39°34'59.862"N	80°35'14.319"W	947.15	288.873	1.26	1.06	-1.11
4547.00	38.250	287.970	4238.42	857.21	-951.81	1693494.12	396431.88	1693494.12	396431.88	39°34'59.035"N	80°35'15.032"W	1005.61	288.827	0.46	-0.44	-0.24
4642.00	37.370	289.210	4313.47	906.72	-1007.00	1693438.93	396450.44	1693438.93	396450.44	39°35'00.212"N	80°35'15.740"W	1063.84	288.814	1.22	-0.93	1.31
4737.00	37.890	287.780	4388.71	955.98	-1062.01	1693383.92	396468.83	1693383.92	396468.83	39°35'00.387"N	80°35'16.445"W	1121.84	288.797	1.07	0.55	-1.51
4832.00	39.420	288.450	4462.90	1006.18	-1118.40	1693327.53	396487.28	1693327.53	396487.28	39°35'00.562"N	80°35'17.168"W	1181.17	288.763	1.67	1.61	0.71

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
4927.00	38.190	285.000	4536.94	1055.75	397.08	-1175.39	1693270.55	396504.43	39°35'00.725"N	80°35'17.899"W	1240.65	288.666	2.62	-1.29	-3.63
5022.00	35.380	286.130	4613.02	1102.45	412.32	-1230.19	1693215.75	396519.68	39°35'00.869"N	80°35'18.601"W	1297.45	288.530	3.04	-2.96	1.19
5117.00	35.370	290.210	4690.49	1148.98	429.46	-1282.42	1693163.53	396536.82	39°35'01.032"N	80°35'19.270"W	1352.42	288.515	2.49	-0.01	4.29
5212.00	37.040	290.960	4767.14	1197.69	449.20	-1334.95	1693111.00	396556.55	39°35'01.221"N	80°35'19.944"W	1408.50	288.598	1.82	1.76	0.79
5307.00	41.010	289.550	4840.93	1249.41	469.87	-1391.06	1693054.89	396577.22	39°35'01.419"N	80°35'20.664"W	1468.28	288.664	4.28	4.18	-1.48
5399.00	39.360	289.140	4911.21	1300.30	489.54	-1447.07	1692998.89	396596.89	39°35'01.606"N	80°35'21.383"W	1527.63	288.691	1.82	-1.79	-0.45
5494.00	37.720	290.250	4985.52	1351.21	509.48	-1502.80	1692943.16	396616.83	39°35'01.797"N	80°35'22.097"W	1586.81	288.728	1.87	-1.73	1.17
5589.00	38.260	288.570	5060.39	1401.35	528.90	-1557.95	1692888.02	396636.25	39°35'01.982"N	80°35'22.805"W	1645.28	288.752	1.23	0.57	-1.77
5684.00	38.430	287.330	5134.90	1451.11	547.07	-1614.01	1692831.95	396654.41	39°35'02.155"N	80°35'23.523"W	1704.21	288.724	0.83	0.18	-1.31
5779.00	38.540	287.950	5209.26	1500.86	564.98	-1670.35	1692775.62	396672.33	39°35'02.325"N	80°35'24.246"W	1763.32	288.688	0.42	0.12	0.65
5874.00	38.500	288.640	5283.59	1551.00	583.55	-1726.53	1692719.45	396690.90	39°35'02.502"N	80°35'24.966"W	1822.48	288.675	0.45	-0.04	0.73
5969.00	38.420	288.150	5357.98	1601.13	602.20	-1782.59	1692663.39	396709.54	39°35'02.679"N	80°35'25.685"W	1881.56	288.666	0.33	-0.08	-0.52
6064.00	38.540	288.570	5432.35	1651.27	620.82	-1838.70	1692607.28	396728.16	39°35'02.857"N	80°35'26.404"W	1940.68	288.657	0.30	0.13	0.44
6159.00	38.410	289.170	5506.72	1701.68	639.93	-1894.63	1692551.36	396747.28	39°35'03.039"N	80°35'27.122"W	1999.78	288.663	0.42	-0.14	0.63
6253.00	38.440	290.130	5580.36	1751.91	659.58	-1949.64	1692496.35	396766.92	39°35'03.226"N	80°35'27.827"W	2058.19	288.691	0.64	0.03	1.02
6348.00	38.380	290.600	5654.81	1803.03	680.12	-2004.98	1692441.02	396787.46	39°35'03.423"N	80°35'28.537"W	2117.19	288.738	0.31	-0.06	0.49
6443.00	38.530	290.240	5729.20	1854.23	700.73	-2060.34	1692385.65	396808.07	39°35'03.620"N	80°35'29.247"W	2176.24	288.783	0.28	0.16	-0.38
6538.00	38.290	290.110	5803.64	1905.25	721.09	-2115.74	1692330.26	396828.42	39°35'03.814"N	80°35'29.958"W	2235.25	288.820	0.27	-0.25	-0.14
6633.00	38.410	288.870	5878.14	1955.85	740.75	-2171.31	1692274.69	396848.09	39°35'04.002"N	80°35'30.671"W	2294.19	288.837	0.82	0.13	-1.31
6728.00	38.450	287.020	5952.57	2005.70	758.94	-2227.48	1692218.53	396866.28	39°35'04.175"N	80°35'31.391"W	2353.22	288.815	1.21	0.04	-1.95
6823.00	38.270	286.270	6027.06	2054.74	775.83	-2283.96	1692162.05	396883.16	39°35'04.335"N	80°35'32.115"W	2412.14	288.762	0.53	-0.19	-0.79
6918.00	38.140	287.100	6101.71	2103.65	792.70	-2340.24	1692105.77	396900.03	39°35'04.495"N	80°35'32.836"W	2470.85	288.713	0.56	-0.14	0.87
7013.00	38.490	288.430	6176.25	2153.27	810.67	-2396.33	1692049.69	396918.00	39°35'04.666"N	80°35'33.556"W	2529.74	288.691	0.94	0.37	1.40
7108.00	38.380	289.570	6250.67	2203.70	829.90	-2452.17	1691993.85	396937.23	39°35'04.849"N	80°35'34.272"W	2588.79	288.698	0.75	-0.12	1.20
7203.00	38.390	290.010	6325.13	2254.50	849.87	-2507.67	1691938.35	396957.20	39°35'05.040"N	80°35'34.984"W	2647.77	288.722	0.29	0.01	0.46
7298.00	38.330	290.720	6399.62	2305.56	870.39	-2562.94	1691883.08	396977.71	39°35'05.236"N	80°35'35.693"W	2706.70	288.758	0.47	-0.06	0.75
7393.00	38.380	291.490	6474.12	2357.00	891.61	-2617.94	1691828.09	396998.94	39°35'05.439"N	80°35'36.398"W	2765.60	288.808	0.51	0.05	0.81
7488.00	38.380	291.770	6548.59	2408.73	913.35	-2672.77	1691773.27	397020.68	39°35'05.647"N	80°35'37.102"W	2824.52	288.867	0.18	0.00	0.29
7533.00	39.790	293.630	6583.52	2433.86	924.31	-2698.94	1691747.10	397031.63	39°35'05.753"N	80°35'37.438"W	2852.82	288.905	4.08	3.13	4.13
7583.00	43.270	298.210	6620.96	2464.04	938.83	-2728.71	1691717.33	397046.15	39°35'05.893"N	80°35'37.820"W	2885.70	288.986	9.23	6.96	9.16

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Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
7628.00	47.300	303.620	6652.62	2494.18	955.29	-2756.09	1691689.95	397062.61	39°35'06.052"N	80°35'38.173"W	2916.95	289.117	12.37	8.96	12.02
7678.00	49.460	307.510	6685.84	2530.31	977.04	-2786.47	1691659.57	397084.36	39°35'06.263"N	80°35'38.564"W	2952.80	289.322	7.24	4.32	7.78
7723.00	52.510	310.210	6714.17	2564.57	998.98	-2813.68	1691632.36	397106.30	39°35'06.477"N	80°35'38.915"W	2985.76	289.547	8.23	6.78	6.00
7773.00	57.510	311.980	6742.83	2604.99	1025.91	-2844.52	1691601.52	397133.23	39°35'06.739"N	80°35'39.313"W	3023.87	289.832	10.41	10.00	3.54
7818.00	63.350	313.800	6765.03	2643.78	1052.55	-2873.17	1691572.87	397159.86	39°35'06.999"N	80°35'39.683"W	3059.90	290.120	13.45	12.98	4.04
7868.00	69.350	315.380	6785.08	2689.33	1084.70	-2905.76	1691540.28	397192.01	39°35'07.313"N	80°35'40.104"W	3101.62	290.470	12.34	12.00	3.16
7920.00	72.650	316.660	6802.01	2738.34	1120.07	-2939.90	1691506.15	397227.38	39°35'07.658"N	80°35'40.546"W	3146.04	290.856	6.76	6.35	2.46
7963.00	74.220	317.170	6814.27	2779.48	1150.17	-2968.05	1691478.00	397257.48	39°35'07.952"N	80°35'40.910"W	3183.11	291.182	3.82	3.65	1.19
8009.00	76.930	318.620	6825.72	2823.99	1183.22	-2997.91	1691448.14	397290.53	39°35'08.275"N	80°35'41.297"W	3222.96	291.538	6.64	5.89	3.15
8058.00	82.470	319.840	6834.48	2872.17	1219.72	-3029.38	1691416.68	397327.03	39°35'08.632"N	80°35'41.704"W	3265.71	291.931	11.57	11.31	2.49
8152.00	90.520	321.770	6840.23	2965.91	1292.38	-3088.62	1691357.44	397399.68	39°35'09.343"N	80°35'42.472"W	3348.10	292.706	8.81	8.56	2.05
8247.00	91.510	323.090	6838.54	3060.83	1367.66	-3146.53	1691299.53	397474.96	39°35'10.080"N	80°35'43.223"W	3430.91	293.493	1.74	1.04	1.39
8343.00	90.950	321.320	6836.48	3156.75	1443.50	-3205.34	1691240.72	397550.79	39°35'10.823"N	80°35'43.986"W	3515.38	294.244	1.93	-0.58	-1.84
8437.00	91.820	324.210	6834.21	3250.63	1518.31	-3262.20	1691183.87	397625.60	39°35'11.555"N	80°35'44.724"W	3598.22	294.958	3.21	0.93	3.07
8532.00	91.380	331.190	6831.55	3344.75	1598.53	-3312.91	1691133.16	397705.81	39°35'12.342"N	80°35'45.384"W	3678.41	295.758	7.36	-0.46	7.35
8627.00	90.920	334.990	6829.65	3437.38	1683.21	-3355.89	1691090.18	397790.49	39°35'13.173"N	80°35'45.946"W	3754.36	296.637	4.03	-0.48	4.00
8722.00	90.620	335.420	6828.37	3529.20	1769.44	-3395.73	1691050.35	397876.72	39°35'14.021"N	80°35'46.469"W	3829.09	297.523	0.55	-0.32	0.45
8817.00	90.620	335.810	6827.34	3620.84	1855.96	-3434.95	1691011.13	397963.23	39°35'14.871"N	80°35'46.983"W	3904.29	298.383	0.41	0.00	0.41
8912.00	90.550	335.660	6826.37	3712.43	1942.57	-3473.99	1690972.10	398049.83	39°35'15.722"N	80°35'47.495"W	3980.22	299.213	0.17	-0.07	-0.16
9007.00	90.520	333.500	6825.48	3804.50	2028.36	-3514.76	1690931.32	398135.62	39°35'16.565"N	80°35'48.029"W	4058.05	299.989	2.27	-0.03	-2.27
9102.00	90.520	333.770	6824.62	3896.96	2113.47	-3556.95	1690889.14	398220.73	39°35'17.401"N	80°35'48.581"W	4137.47	300.718	0.28	0.00	0.28
9197.00	90.550	333.670	6823.73	3989.38	2198.65	-3599.01	1690847.08	398305.90	39°35'18.238"N	80°35'49.132"W	4217.45	301.421	0.11	0.03	-0.11
9292.00	90.430	334.870	6822.92	4081.58	2284.23	-3640.25	1690805.84	398391.47	39°35'19.079"N	80°35'49.672"W	4297.57	302.108	1.27	-0.13	1.26
9387.00	90.650	333.220	6822.03	4173.88	2369.64	-3681.82	1690764.27	398476.87	39°35'19.918"N	80°35'50.216"W	4378.47	302.766	1.75	0.23	-1.74
9482.00	90.400	330.360	6821.16	4266.98	2453.34	-3726.72	1690719.37	398560.57	39°35'20.739"N	80°35'50.803"W	4461.77	303.357	3.02	-0.26	-3.01
9577.00	90.250	328.940	6820.62	4360.72	2535.32	-3774.72	1690671.38	398642.55	39°35'21.544"N	80°35'51.429"W	4547.13	303.888	1.50	-0.16	-1.49
9672.00	89.320	329.330	6820.97	4454.61	2616.86	-3823.46	1690622.64	398724.08	39°35'22.344"N	80°35'52.064"W	4633.23	304.389	1.06	-0.98	0.41
9767.00	89.630	330.520	6821.84	4548.28	2699.07	-3871.06	1690575.04	398806.28	39°35'23.150"N	80°35'52.685"W	4719.12	304.886	1.29	0.33	1.25
9862.00	89.540	328.150	6822.53	4642.10	2780.78	-3919.51	1690526.60	398887.99	39°35'23.952"N	80°35'53.316"W	4805.75	305.355	2.50	-0.09	-2.49
9957.00	90.280	330.810	6822.68	4735.89	2862.61	-3967.75	1690478.36	398969.81	39°35'24.755"N	80°35'53.945"W	4892.60	305.809	2.91	0.78	2.80

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Facility	Big 177 Pad		

WELLPATH DATA (186 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
10052.00	90.120	336.320	6822.35	4828.34	2947.64	-4010.03	1690436.09	399054.84	39°35'25.590"N	80°35'54.498"W	4976.84	306.318	5.80	-0.17	5.80
10147.00	90.340	338.330	6821.97	4919.19	3035.29	-4046.65	1690399.47	399142.49	39°35'26.452"N	80°35'54.980"W	5058.49	306.873	2.13	0.23	2.12
10242.00	90.180	335.680	6821.54	5010.20	3122.73	-4083.75	1690362.36	399229.92	39°35'27.311"N	80°35'55.467"W	5140.87	307.404	2.79	-0.17	-2.79
10336.00	90.340	331.730	6821.11	5101.64	3206.99	-4125.39	1690320.73	399314.17	39°35'28.139"N	80°35'56.012"W	5225.29	307.861	4.21	0.17	-4.20
10432.00	89.910	332.430	6820.90	5195.63	3291.82	-4170.34	1690275.79	399398.99	39°35'28.972"N	80°35'56.600"W	5312.98	308.285	0.86	-0.45	0.73
10526.00	89.940	332.230	6821.02	5287.58	3375.06	-4213.99	1690232.14	399482.24	39°35'29.789"N	80°35'57.170"W	5398.96	308.692	0.22	0.03	-0.21
10621.00	89.970	332.850	6821.10	5380.44	3459.36	-4257.80	1690188.33	399566.53	39°35'30.617"N	80°35'57.743"W	5485.98	309.093	0.65	0.03	0.65
10716.00	89.750	330.370	6821.33	5473.61	3542.93	-4302.96	1690143.17	399650.09	39°35'31.438"N	80°35'58.333"W	5573.85	309.467	2.62	-0.23	-2.61
10811.00	89.570	332.200	6821.89	5566.87	3626.24	-4348.60	1690097.53	399733.40	39°35'32.255"N	80°35'58.929"W	5662.15	309.824	1.94	-0.19	1.93
10906.00	89.880	335.140	6822.35	5659.31	3711.37	-4390.73	1690055.40	399818.53	39°35'33.092"N	80°35'59.480"W	5749.16	310.207	3.11	0.33	3.09
11001.00	90.120	334.150	6822.35	5751.37	3797.22	-4431.41	1690014.73	399904.37	39°35'33.935"N	80°36'00.013"W	5835.78	310.593	1.07	0.25	-1.04
11096.00	89.970	331.230	6822.28	5844.16	3881.62	-4475.00	1689971.15	399988.77	39°35'34.764"N	80°36'00.583"W	5923.90	310.938	3.08	-0.16	-3.07
11191.00	89.970	330.210	6822.33	5937.61	3964.49	-4521.46	1689924.69	400071.62	39°35'35.577"N	80°36'01.190"W	6013.38	311.245	1.07	0.00	-1.07
11286.00	89.750	330.930	6822.56	6031.10	4047.23	-4568.14	1689878.01	400154.36	39°35'36.389"N	80°36'01.799"W	6103.11	311.540	0.79	-0.23	0.76
11381.00	89.720	328.840	6823.00	6124.78	4129.40	-4615.80	1689830.35	400236.53	39°35'37.195"N	80°36'02.420"W	6193.34	311.817	2.20	-0.03	-2.20
11476.00	89.720	327.330	6823.46	6218.91	4210.03	-4666.02	1689780.14	400317.16	39°35'37.986"N	80°36'03.074"W	6284.59	312.059	1.59	0.00	-1.59
11571.00	89.660	330.860	6823.98	6312.79	4291.53	-4714.80	1689731.35	400398.65	39°35'38.786"N	80°36'03.710"W	6375.47	312.309	3.72	-0.06	3.72
11666.00	89.940	332.190	6824.31	6405.99	4375.04	-4760.10	1689686.06	400482.15	39°35'39.605"N	80°36'04.302"W	6465.25	312.586	1.43	0.29	1.40
11760.00	89.660	332.340	6824.64	6497.96	4458.24	-4803.84	1689642.32	400565.34	39°35'40.422"N	80°36'04.874"W	6553.84	312.863	0.34	-0.30	0.16
11855.00	89.660	332.840	6825.20	6590.80	4542.57	-4847.58	1689598.59	400649.67	39°35'41.251"N	80°36'05.446"W	6643.34	313.140	0.53	0.00	0.53
11950.00	89.630	330.730	6825.79	6683.91	4626.27	-4892.49	1689553.68	400733.37	39°35'42.072"N	80°36'06.032"W	6733.41	313.398	2.22	-0.03	-2.22
12045.00	89.660	329.430	6826.38	6777.54	4708.61	-4939.87	1689506.30	400815.70	39°35'42.880"N	80°36'06.650"W	6824.46	313.627	1.37	0.03	-1.37
12140.00	89.690	332.290	6826.92	6870.93	4791.58	-4986.12	1689460.05	400898.66	39°35'43.695"N	80°36'07.254"W	6915.25	313.860	3.01	0.03	3.01
12235.00	89.630	336.240	6827.48	6963.12	4877.13	-5027.36	1689418.81	400984.22	39°35'44.535"N	80°36'07.794"W	7004.34	314.131	4.16	-0.06	4.16
12330.00	89.660	335.710	6828.07	7054.61	4963.90	-5066.04	1689380.14	401070.98	39°35'45.388"N	80°36'08.302"W	7092.61	314.417	0.56	0.03	-0.56
12425.00	89.630	331.080	6828.66	7147.13	5048.82	-5108.57	1689337.61	401155.89	39°35'46.222"N	80°36'08.859"W	7182.49	314.663	4.87	-0.03	-4.87
12520.00	89.380	330.990	6829.48	7240.48	5131.93	-5154.58	1689291.61	401239.00	39°35'47.038"N	80°36'09.459"W	7273.68	314.874	0.28	-0.26	-0.09
12615.00	89.600	329.130	6830.32	7334.11	5214.25	-5201.99	1689244.20	401321.31	39°35'47.845"N	80°36'10.078"W	7365.40	315.067	1.97	0.23	-1.96
12709.00	89.320	325.250	6831.21	7427.42	5293.23	-5252.91	1689193.28	401400.29	39°35'48.620"N	80°36'10.741"W	7457.30	315.219	4.14	-0.30	-4.13
12804.00	89.290	324.290	6832.36	7522.13	5370.83	-5307.71	1689138.49	401477.88	39°35'49.380"N	80°36'11.453"W	7551.00	315.339	1.01	-0.03	-1.01

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Big 177 H5 AWP Proj: 16141'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
12899.00	89.510	328.250	6833.36	7616.60	5449.81	-5360.45	1689085.75	401556.86	39°35'50.154"N	80°36'12.139"W	7644.27	315.474	4.17	0.23	4.17
12994.00	89.600	331.850	6834.10	7710.22	5532.11	-5407.86	1689038.34	401639.16	39°35'50.962"N	80°36'12.757"W	7736.23	315.651	3.79	0.09	3.79
13089.00	89.510	333.160	6834.83	7803.09	5616.38	-5451.72	1688994.48	401723.42	39°35'51.789"N	80°36'13.331"W	7827.19	315.852	1.38	-0.09	1.38
13184.00	89.050	333.980	6836.03	7895.56	5701.44	-5494.00	1688952.20	401808.47	39°35'52.625"N	80°36'13.884"W	7917.73	316.062	0.99	-0.48	0.86
13279.00	89.170	332.880	6837.50	7988.09	5786.40	-5536.49	1688909.72	401893.42	39°35'53.459"N	80°36'14.440"W	8008.44	316.264	1.16	0.13	-1.16
13373.00	89.080	331.240	6838.94	8080.12	5869.43	-5580.53	1688865.68	401976.45	39°35'54.274"N	80°36'15.016"W	8098.92	316.445	1.75	-0.10	-1.74
13468.00	88.890	332.160	6840.62	8173.24	5953.06	-5625.56	1688820.66	402060.08	39°35'55.095"N	80°36'15.604"W	8190.59	316.620	0.99	-0.20	0.97
13563.00	88.860	332.780	6842.49	8266.11	6037.28	-5669.46	1688776.76	402144.30	39°35'55.922"N	80°36'16.178"W	8282.00	316.800	0.65	-0.03	0.65
13658.00	88.770	334.400	6844.45	8358.56	6122.35	-5711.70	1688734.52	402229.36	39°35'56.758"N	80°36'16.731"W	8372.97	316.987	1.71	-0.09	1.71
13753.00	88.710	332.380	6846.54	8451.08	6207.26	-5754.24	1688691.98	402314.26	39°35'57.592"N	80°36'17.288"W	8464.12	317.169	2.13	-0.06	-2.13
13848.00	88.890	331.210	6848.53	8544.17	6290.96	-5799.13	1688647.09	402397.96	39°35'58.413"N	80°36'17.875"W	8556.06	317.330	1.25	0.19	-1.23
13943.00	88.770	329.380	6850.47	8637.72	6373.46	-5846.19	1688600.03	402480.45	39°35'59.223"N	80°36'18.489"W	8648.64	317.471	1.93	-0.13	-1.93
14038.00	88.980	329.320	6852.34	8731.53	6455.17	-5894.62	1688551.61	402562.16	39°36'00.025"N	80°36'19.120"W	8741.61	317.599	0.23	0.22	-0.06
14133.00	89.200	329.270	6853.84	8825.36	6536.84	-5943.12	1688503.11	402643.82	39°36'00.826"N	80°36'19.753"W	8834.64	317.724	0.24	0.23	-0.05
14228.00	89.110	329.470	6855.24	8919.18	6618.58	-5991.51	1688454.72	402725.55	39°36'01.628"N	80°36'20.384"W	8927.70	317.847	0.23	-0.09	0.21
14323.00	89.170	330.340	6856.67	9012.85	6700.76	-6039.15	1688407.09	402807.73	39°36'02.434"N	80°36'21.005"W	9020.61	317.973	0.92	0.06	0.92
14417.00	89.050	331.790	6858.13	9105.20	6783.01	-6084.62	1688361.62	402889.98	39°36'03.241"N	80°36'21.599"W	9112.18	318.107	1.55	-0.13	1.54
14512.00	89.170	336.150	6859.61	9197.49	6868.35	-6126.29	1688319.95	402975.31	39°36'04.080"N	80°36'22.145"W	9203.57	318.268	4.59	0.13	4.59
14606.00	89.110	336.250	6861.02	9287.91	6954.34	-6164.22	1688282.02	403061.30	39°36'04.925"N	80°36'22.643"W	9293.04	318.447	0.12	-0.06	0.11
14702.00	89.290	336.150	6862.36	9380.25	7042.17	-6202.96	1688243.29	403149.12	39°36'05.788"N	80°36'23.151"W	9384.50	318.625	0.21	0.19	-0.10
14797.00	89.420	335.670	6863.43	9471.76	7128.89	-6241.73	1688204.52	403235.84	39°36'06.640"N	80°36'23.660"W	9475.25	318.796	0.52	0.14	-0.51
14892.00	89.420	335.450	6864.39	9563.43	7215.37	-6281.03	1688165.22	403322.31	39°36'07.490"N	80°36'24.176"W	9566.24	318.960	0.23	0.00	-0.23
14987.00	89.450	334.470	6865.33	9655.35	7301.44	-6321.24	1688125.01	403408.37	39°36'08.336"N	80°36'24.703"W	9657.59	319.116	1.03	0.03	-1.03
15082.00	89.540	331.930	6866.16	9747.96	7386.22	-6364.07	1688082.19	403493.15	39°36'09.169"N	80°36'25.264"W	9749.75	319.251	2.68	0.09	-2.67
15177.00	89.420	329.090	6867.03	9841.46	7468.90	-6410.83	1688035.43	403575.83	39°36'09.980"N	80°36'25.874"W	9842.93	319.359	2.99	-0.13	-2.99
15271.00	89.510	327.280	6867.90	9934.57	7548.78	-6460.38	1687985.88	403655.69	39°36'10.763"N	80°36'26.519"W	9935.82	319.442	1.93	0.10	-1.93
15366.00	89.420	325.790	6868.79	10029.01	7628.02	-6512.76	1687933.51	403734.94	39°36'11.540"N	80°36'27.201"W	10030.09	319.509	1.57	-0.09	-1.57
15461.00	89.540	325.090	6869.65	10123.63	7706.25	-6566.65	1687879.62	403813.16	39°36'12.307"N	80°36'27.902"W	10124.58	319.565	0.75	0.13	-0.74
15556.00	89.600	324.950	6870.37	10218.32	7784.09	-6621.11	1687825.16	403890.99	39°36'13.069"N	80°36'28.610"W	10219.16	319.616	0.16	0.06	-0.15
15651.00	89.600	326.740	6871.03	10312.87	7862.70	-6674.44	1687771.83	403969.60	39°36'13.839"N	80°36'29.304"W	10313.59	319.673	1.88	0.00	1.88

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Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
15746.00	89.200	327.380	6872.02	10407.22	7942.42	-6726.10	1687720.18	404049.32	39°36'14.621"N	80°36'29.976"W	10407.81	319.740	0.79	-0.42	0.67
15841.00	89.510	329.550	6873.09	10501.25	8023.38	-6775.78	1687670.51	404130.27	39°36'15.415"N	80°36'30.623"W	10501.70	319.819	2.31	0.33	2.28
15935.00	88.950	331.500	6874.36	10593.76	8105.20	-6822.02	1687624.26	404212.09	39°36'16.218"N	80°36'31.227"W	10594.07	319.913	2.16	-0.60	2.07
16030.00	89.420	337.450	6875.71	10685.84	8190.88	-6862.94	1687583.35	404297.76	39°36'17.060"N	80°36'31.763"W	10685.99	320.041	6.28	0.49	6.26
16114.00	89.570	339.540	6876.45	10765.65	8269.03	-6893.73	1687552.56	404375.90	39°36'17.828"N	80°36'32.169"W	10765.70	320.183	2.49	0.18	2.49
16141.00	89.570	339.540	6876.65	10791.15	8294.32	-6903.16	1687543.13	404401.20	39°36'18.077"N	80°36'32.293"W	10791.18	320.230	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Big 177 H5 AWB Ref Wellpath: Big 177 H5 AWP Proj: 16141'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
17.5in Open Hole	23.00	795.00	772.00	23.00	794.85	0.00	0.00	11.70	7.73
13.375in Casing Surface	23.00	780.00	757.00	23.00	779.85	0.00	0.00	11.46	7.64
12.25in Open Hole	795.00	2783.00	1988.00	794.85	2780.74	11.70	7.73	34.46	-69.43
9.625in Casing Intermediate	23.00	2733.00	2710.00	23.00	2730.74	0.00	0.00	34.84	-69.67
8.75in Open Hole	2783.00	5472.00	2689.00	2780.74	4968.16	34.46	-69.43	504.83	-1490.11
8.5in Open Hole	5472.00	16141.00	10669.00	4968.16	6876.65	504.83	-1490.11	8294.32	-6903.16
5.5in Casing Production	23.00	16141.00	16118.00	23.00	6876.65	0.00	0.00	8294.32	-6903.16

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Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Big 177 H5 LP Rev-2	6847.00	1280.59	-3070.06	1691375.99	397387.89	39°35'09.229"N	80°35'42.233"W	point
Big 177 H5 BHL Rev-2	6885.94	8307.57	-6885.40	1687560.89	404414.44	39°36'18.210"N	80°36'32.069"W	point

WELLPATH COMPOSITION - Ref Wellbore: Big 177 H5 AWB Ref Wellpath: Big 177 H5 AWP Proj: 16141'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
23.00	736.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata Gyro <17-1/2"> (100'-736')	Big 177 H5 AWB	
736.00	2703.00	OWSG MWD rev2 - Standard	02 SDI MWD <12-1/4"> (736')(821'-2703')	Big 177 H5 AWB	
2703.00	5399.00	OWSG MWD rev2 - Standard	03 SDI MWD <8-3/4"> (2703')(2776'-5399')	Big 177 H5 AWB	
5399.00	16114.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2"> (5399')(5494'-16114')	Big 177 H5 AWB	
16114.00	16141.00	Blind Drilling (std)	Projection to bit	Big 177 H5 AWB	

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Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

COMMENTS

Wellpath general comments

API: 47-103-03189-0000
 BH Job #: 8929565
 Rig: Pioneer 72
 Duration: 1/1/2018-1/5/2018
 Gyrodatta MS Gyro <17-1/2"> (100'-736')
 SDI MWD <12-1/4"> (736')(821'-2703')
 SDI MWD <8-3/4"> (2703')(2776'-5399')
 BH AT Curve <8-1/2"> (5399')(5494'-16114')
 Projected MD at TD: 16141'

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512917 47-103-031890000 - Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
Initiation Sleeve	2/19/2018	16011	16,109	10	MARCELLUS
2	3/1/2018	15809	15,971	40	MARCELLUS
3	3/1/2018	15608	15,771	40	MARCELLUS
4	3/2/2018	15409	15,571	40	MARCELLUS
5	3/3/2018	15209	15,371	40	MARCELLUS
6	3/4/2018	15009	15,171	40	MARCELLUS
7	3/4/2018	14809	14,971	40	MARCELLUS
8	3/5/2018	14609	14,771	40	MARCELLUS
9	3/6/2018	14409	14,571	40	MARCELLUS
10	3/6/2018	14209	14,371	40	MARCELLUS
11	3/7/2018	14009	14,171	40	MARCELLUS
12	3/8/2018	13929	13,891	40	MARCELLUS
13	3/9/2018	13609	13,771	40	MARCELLUS
14	3/9/2018	13409	13,571	40	MARCELLUS
15	3/10/2018	13209	13,371	40	MARCELLUS
16	3/11/2018	13009	12,991	16	MARCELLUS
17	3/11/2018	12749	12,911	40	MARCELLUS
18	3/12/2018	12549	12,711	40	MARCELLUS
19	3/12/2018	12349	12,511	40	MARCELLUS
20	3/13/2018	12149	12,311	40	MARCELLUS
21	3/14/2018	11949	12,111	40	MARCELLUS
22	3/14/2018	11749	11,911	40	MARCELLUS
23	3/15/2018	11549	11,711	40	MARCELLUS
24	3/15/2018	11349	11,511	40	MARCELLUS
25	3/16/2018	11149	11,311	40	MARCELLUS
26	3/16/2018	10949	11,111	40	MARCELLUS
27	3/17/2018	10749	10,911	40	MARCELLUS
28	3/18/2018	10549	10,711	40	MARCELLUS
29	3/18/2018	10349	10,511	40	MARCELLUS
30	3/19/2018	10149	10,311	40	MARCELLUS
31	3/20/2018	9949	10,111	40	MARCELLUS
32	3/20/2018	9749	9,911	40	MARCELLUS
33	3/21/2018	9549	9,711	40	MARCELLUS
34	3/21/2018	9349	9,511	40	MARCELLUS
35	3/21/2018	9149	9,311	40	MARCELLUS
36	3/22/2018	8949	9,111	40	MARCELLUS
37	3/22/2018	8749	8,911	40	MARCELLUS
38	3/23/2018	8549	8,711	40	MARCELLUS
39	3/24/2018	8349	8,511	40	MARCELLUS
40	3/24/2018	8149	8,311	40	MARCELLUS
41	3/25/2018	7949	8,111	40	MARCELLUS
42	3/26/2018	7749	7,911	40	MARCELLUS
43	3/27/2018	7549	7,711	40	MARCELLUS

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512917 47-103-031890000 - 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)
1	2/28/2018	90	8,963	9,198	4,009	268475	5,254	0
2	3/1/2018	94	9,199	9,400	4,414	449569	8,113	0
3	3/2/2018	95	9,053	9,353	4,563	450007	8,287	0
4	3/3/2018	95	9,193	9,415	4,608	449183	8,008	0
5	3/4/2018	98	9,200	9,308	5,229	450650	7,788	0
6	3/4/2018	80	9,127	9,477	5,333	449936	8,444	0
7	3/5/2018	100	9,154	9,390	4,387	449268	7,761	0
8	3/6/2018	99	8,891	9,492	5,078	450661	8,020	0
9	3/6/2018	100	8,887	9,245	4,489	448873	7,843	0
10	3/7/2018	96	9,140	9,460	5,428	450189	7,850	0
11	3/7/2018	84	8,922	9,668	5,442	238981	6,720	0
11	3/8/2018	16	6,627	6,913	5,000	211587	3,271	0
11	3/8/2018	89	8,568	9,010	5,574		4,497	0
12	3/9/2018	99	8,857	9,186	4,602	449726	8,195	0
13	3/9/2018	98	9,065	9,353	5,000	450053	7,759	0
14	3/10/2018	94	9,073	9,299	4,434	450860	8,717	0
15	3/11/2018	86	8,884	9,708	5,512	450000	9,600	0
16	3/11/2018	74	9,170	9,374	5,562	228008	8,380	0
16	3/11/2018	89	8,977	9,314	5,934	226192	5,085	0
17	3/12/2018	91	9,084	9,613	5,957	318159	7,568	0
18	3/12/2018	94	8,758	9,229	5,743	449202	7,850	0
19	3/13/2018	88	8,618	9,370	4,816	449642	9,314	0
20	3/14/2018	98	8,366	9,475	5,562	443364	7,624	0
21	3/14/2018	98	8,741	9,262	5,132	451827	7,779	0
22	3/15/2018	99	8,255	8,576	4,974	450311	7,936	0
23	3/15/2018	100	8,469	8,656	4,883	450419	7,849	0
24	3/16/2018	101	8,237	8,404	4,966	449720	7,523	0
25	3/16/2018	101	8,350	8,577	4,781	449117	7,553	0
26	3/17/2018	100	8,466	8,838	5,024	450629	7,434	0
27	3/18/2018	100	8,292	8,653	5,033	449653	7,420	0
28	3/18/2018	100	8,518	8,936	4,901	450994	7,493	0
29	3/19/2018	101	8,212	8,839	5,651	450630	7,325	0
30	3/20/2018	101	8,457	8,930	4,945	450011	7,222	0
31	3/20/2018	100	8,423	9,138	4,741	449002	8,074	0
32	3/21/2018	98	8,739	9,225	5,311	449642	7,391	0
33	3/21/2018	100	8,197	9,312	6,365	449979	7,362	0
34	3/21/2018	99	8,256	9,072	6,229	450388	8,359	0
35	3/22/2018	94	8,358	9,204	6,000	313962	7,992	0
36	3/22/2018	101	8,071	9,123	5,763	448772	8,350	0
37	3/23/2018	97	8,316	9,011	5,998	453570	8,549	0
38	3/24/2018	100	8,448	8,841	5,600	449999	7,222	0
39	3/24/2018	100	7,816	8,100	5,451	450230	7,182	0
40	3/25/2018	99	8,160	8,438	5,489	450009	7,211	0
41	3/25/2018	100	7,784	8,577	5,212	449737	7,131	0
42	3/27/2018	100	7,491	8,991	4,805	453433	7,038	0
43	3/27/2018	100	6,667	7,126	4,679	450513	7,311	0

WV Department of Environmental Protection

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/28/2018
Job End Date:	3/27/2018
State:	West Virginia
County:	Wetzel
API Number:	47-103-03189-00-00
Operator Name:	EQT Production
Well Name and Number:	512917
Latitude:	39.58248400
Longitude:	-80.58411800
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,808
Total Base Water Volume (gal):	14,559,468
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	FTS International	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	86.29832	None
CS-1800	FTS International	Scale Inhibitor					
				Listed Below			

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FRW-1450	FTS International	Friction Reducer					
				Listed Below			
ABP-1	FTS International	Breaker					
				Listed Below			
FRW-600	FTS International	Friction Reducer					
				Listed Below			
Hydrochloric Acid (15%)	FTS International	Acidizing					
				Listed Below			
Sand (Proppant)	FTS International	Proppant					
				Listed Below			
CI-150	FTS International	Acid Corrosion Inhibitor					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				Listed Below			
HVG-14.0	FTS International	Gelling Agent					
				Listed Below			
BIOC11139A	Nalco Champion	Biocide					

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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	13.42796	None
			Distillates (petroleum), hydrotreated light	64742-47-8	30.00000	0.02425	
			Distillates (petroleum), hydrotreated light	64742-47-8	30.00000	0.02425	None
			Hydrochloric Acid	7647-01-0	15.00000	0.02188	None
			Phosphonic Acid (Nitrilotris (methylene) Tris	6419-19-8	35.00000	0.00839	
			Phosphonic Acid (Nitrilotris (methylene) Tris	6419-19-8	35.00000	0.00839	None
			Benzyl-(C12-C16 Alkyl)-Ammonium Chloride	68424-85-1	30.00000	0.00633	
			Benzyl-(C12-C16 Alkyl)-Ammonium Chloride	68424-85-1	30.00000	0.00633	None
			Alcohols, C11-14-iso, C-13 rich, ethoxylated	78330-21-9	5.00000	0.00404	None
			Alcohols, C11-14-iso, C-13 rich, ethoxylated	78330-21-9	5.00000	0.00404	
			Glutaraldehyde	111-30-8	10.00000	0.00211	
			Glutaraldehyde	111-30-8	10.00000	0.00211	None
			Phosphonic Acid (Dimethylamino) Methylene) Bis	29712-30-9	5.00000	0.00120	None
			Phosphonic Acid (Dimethylamino) Methylene) Bis	29712-30-9	5.00000	0.00120	
			Ethanol	64-17-5	5.00000	0.00105	
			Ethanol	64-17-5	5.00000	0.00105	None
			Phosphorous Acid	10294-56-1	2.00000	0.00048	None
			Phosphorous Acid	10294-56-1	2.00000	0.00048	
			Raffinates, Sorption Process	64741-85-1	55.00000	0.00037	

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			Raffinates, Sorption Process	64741-85-1	55.00000	0.00037	None
			Guar Gum	9000-30-0	50.00000	0.00034	None
			Guar Gum	9000-30-0	50.00000	0.00034	
			Hydrotreated Light Distillate	64742-47-8	30.00000	0.00023	None
			Hydrotreated Light Distillate	64742-47-8	30.00000	0.00023	
			Ammonium Persulfate	7727-54-0	95.00000	0.00021	None
			Ethylene Glycol	107-21-1	30.00000	0.00008	None
			Isopropanol	67-63-0	30.00000	0.00008	None
			Organic Amine Resin Salt	Proprietary	30.00000	0.00008	None
			Alkyl Alcohol	Proprietary	10.00000	0.00008	None
			Alkyl Alcohol	Proprietary	10.00000	0.00008	
			Oxyalkylated alcohol A	Proprietary	5.00000	0.00004	
			Oxyalkylated alcohol A	Proprietary	5.00000	0.00004	None
			Quartz	14808-60-7	4.00000	0.00003	
			Quartz	14808-60-7	4.00000	0.00003	None
			Quaternary Ammonium Compound	Proprietary	10.00000	0.00003	None
			Dimethylformamide	68-12-2	10.00000	0.00003	None
			Aromatic Aldehyde	Proprietary	10.00000	0.00003	None
			Isotridecanol, ethoxylated	9043-30-5	2.00000	0.00001	None
			Isotridecanol, ethoxylated	9043-30-5	2.00000	0.00001	

* 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)

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 512917

API: 47 - 103 - 03189

Submission: Initial Amended

Notes:

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**BIG177
BIG177H5
EQT PRODUCTION COMPANY**

BOTTOM HOLE LATITUDE 39°37'30"
7,206' 7,224'

TH

TOP HOLE LONGITUDE 80°35'00"

BOTTOM HOLE LONGITUDE 80°35'00"

SURFACE OWNERS

G-TM-2-03	DALE K. DULANEY ET UX	5.57 ACRES±	G-TM-7-32	STELLA & LEEK POSTLETHWAIT ET AL	44.60 ACRES±
G-TM-2-04	JOHN C. COMER ET UX	104.00 ACRES±	G-TM-7-33	JOHN R. & ROSA MARGELLEA COOK	20 ACRES±
G-TM-2-05	EDWIN L. DULANEY ET UX	104.00 ACRES±	G-TM-7-34	KENNETH & LORRAINE WILDMAN	44.60 ACRES±
G-TM-2-09	ROBERT W. DULANEY	22.87 ACRES±	G-TM-7-60	CODY N. & WALTER N., JR NORRIS	10 ACRES±
G-TM-2-10	HARLEY R. DULANEY	38 ACRES±	G-TM-8-16	O. J. & MINNIE M. WYATT HEIRS	31.89 ACRES±
G-TM-2-10.1	TEORA L. & SANDRA J. DULANEY	1.53 ACRES±	G-TM-8-17	KENNETH & LORRAINE WILDMAN	67 ACRES±
G-TM-2-10.2	ROBERT W. DULANEY	.45 ACRES±	G-TM-8-18	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	337 ACRES±
G-TM-2-10.3	ROBERT W. DULANEY	.09 ACRES±			
G-TM-2-10.4	HARLEY R. DULANEY	0.130 ACRES±			
G-TM-2-11	EDWIN LEO & LINDA L. DULANEY	26.4 ACRES±	G-TM-8-19	PHILLIP & KIMBERLY SHREVE	46.45 ACRES±
G-TM-2-12	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	3.63 ACRES±	G-TM-8-23	DALE DULANEY ET AL	70.81 ACRES±
			G-TM-8-34	HALLIE HARDBARGER	54.01 ACRES±
			G-TM-8-35	DEBORAH FRONCZEK ET AL	15.5 ACRES±
G-TM-2-12.1	TEORA L. & SANDRA DULANEY	4.72 ACRES±	G-TM-8-58	HIGGINS CHAPEL CHURCH OF CHRIST	0.99 ACRES±
G-TM-2-12.2	TEORA & SANDRA DULANEY	66.64 ACRES±	G-TM-8-64	MARY EASTHAM ET AL	1.45 ACRES±
G-TM-2-13	ROBERT W. DULANEY	2.14 ACRES±	G-TM-8-65	IKEY & TINA WILLEY	2.15 ACRES±
G-TM-2-14	TEORA L. & SANDRA J. DULANEY	.498 ACRES±	G-TM-8-66	EQM GATHERING OPOC LLC	0.42 ACRES±
G-TM-2-15	TEORA L. & SANDRA J. DULANEY	1.023 ACRES±	G-TM-13-4	JEFF, VIRGIL, JR. & DONNAH WILLEY	26.80 ACRES±
G-TM-2-16	TEORA L. DULANEY	3.187 ACRES±	G-TM-13-4.3	JEFFERY L. WILLEY	3.35 ACRES±
G-TM-3-05	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	179.00 ACRES±	G-TM-13-06	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	217.19 ACRES±
G-TM-3-13	EDWARD L. DULANEY II	164.75 ACRES±	PROPOSED BH (AS-DRILLED)		
G-TM-3-23	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	167.75 ACRES±	G-TM-13-07	MANSUEL McDIFFITT ET AL	51.8 ACRES±
G-TM-7-02	ROBERT W. DULANEY	19.43 ACRES±	G-TM-13-12	LESLIE & MIRACLE SUSAN LYDICK	15.02 ACRES±
G-TM-7-2.1	HARLEY R. DULANEY, JR	2 ACRES±	G-TM-13-13	LEEMANE & LINDA L. DUNN	67.5 ACRES±
G-TM-7-2.2	CODY N. & WALTER N., JR NORRIS	2.43 ACRES±	G-TM-13-14	LEEMANE & LINDA L. DUNN	12.5 ACRES±
G-TM-7-03	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	178 ACRES±	G-TM-13-15	ROBERT COLE ET AL.	27.75 ACRES±
			C-TM-18-29	BERNARD LEE, JR & EVELYN M. YOHO	372.90 ACRES±
G-TM-7-3.1	ROBERT W. DULANEY	4 ACRES±	C-TM-18-31	JAMES L. DULANEY, (L/E) DONALD & OLIVE DULANEY	130 19/32 ACRES±
G-TM-7-3.2	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	156.98 ACRES±			
G-TM-7-9	COASTAL FOREST RESOURCES	170.875 ACRES±			
G-TM-7-10	COASTAL FOREST RESOURCES COMPANY d/b/a COASTAL TIMBERLANDS COMPANY	120 ACRES±			

NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS 2500 SQ. FT. OR GREATER, WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCE BOX FOR DWELLING WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE (SHEET 3) AND TOP MARK IS SCALE 1" = 2000'.
- AS DRILLED INFORMATION PROVIDED BY EQT.
- AS-DRILLED PATH DOES NOT PENETRATE LEASE NO. 300653.

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD27 S.P.C.(FT) N. 396,107.39 E. 1,694,445.87
 NAD27 GEO. LAT-(N) 39.582484 LONG-(W) 80.584118
 NAD83 UTM (M) N. 4,381,510.506 E. 535,730.872

LANDING POINT

NAD27 S.P.C.(FT) N. 397,387.89 E. 1,691,375.99
 NAD27 GEO. LAT-(N) 39.585897 LONG-(W) 80.595065
 NAD83 UTM (M) N. 4,381,884.989 E. 534,789.090

BOTTOM HOLE

NAD27 S.P.C.(FT) N. 404,414.44 E. 1,687,560.89
 NAD27 GEO. LAT-(N) 39.605058 LONG-(W) 80.608908
 NAD83 UTM (M) N. 4,384,008.271 E. 533,591.110

AS DRILLED COORDINATES (BIG177H5)

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD27 S.P.C.(FT) N. 396,107.39 E. 1,694,445.87
 NAD27 GEO. LAT-(N) 39.582484 LONG-(W) 80.584118
 NAD83 UTM (M) N. 4,381,510.506 E. 535,730.872

LANDING POINT

NAD27 S.P.C.(FT) N. 397,389.68 E. 1,691,357.44
 NAD27 GEO. LAT-(N) 39.585929 LONG-(W) 80.595131
 NAD83 UTM (M) N. 4,381,888.486 E. 534,783.378

BOTTOM HOLE

NAD27 S.P.C.(FT) N. 404,401.20 E. 1,687,543.13
 NAD27 GEO. LAT-(N) 39.605021 LONG-(W) 80.608970
 NAD83 UTM (M) N. 4,384,002.146 E. 533,585.766



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE MAY 4, 20 17
 REVISED 10/26/17, 10/31/17, 12/05/17 & 02/20/18

OPERATORS WELL NO. BIG177H5
 API WELL NO. 47 - 103 - 03189
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 6806PBIG177H5AD.dwg
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)
 SCALE SEE NOTE 2

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



WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: PAD ELEVATION 811' WATERSHED WILLEY FORK OF NORTH FORK FISHING CREEK
 DISTRICT GRANT COUNTY WETZEL QUADRANGLE BIG RUN 7.5'
 SURFACE OWNER COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO. ACREAGE 27± OF 217±
 ROYALTY OWNER HIGGINS FAMILY TRUST ET AL. ACREAGE 242.5
 PROPOSED WORK: LEASE NO. 103021
 DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
 PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,886'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JASON RANSON
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

EQT PRODUCTION COMPANY
BIG177H5
BIG177

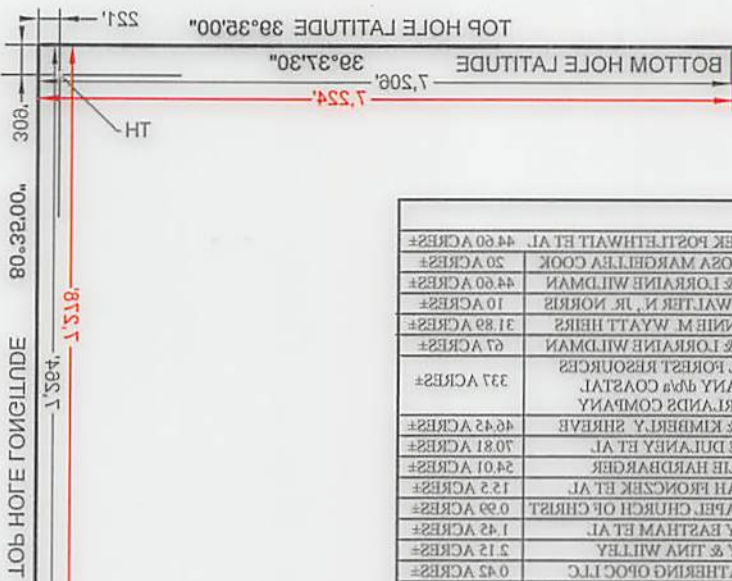


Table with columns: SURFACE OWNERS, G-TM-#, ACRES. Lists various landowners and their acreage.

Table with columns: G-TM-#, ACRES. Lists well identifiers and acreage.

NOTES ON SURVEY

- 1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL...
- 2. CENTER OF PROPOSED WELL PAD...
- 3. AS DRILLED INFORMATION PROVIDED BY EQT.
- 4. AS-DRILLED PATH DOES NOT PENETRATE LEASE NO. 300823.

AS DRILLED COORDINATES (BIG177H5) (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

AS DRILLED COORDINATES (BIG177H5) (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

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AS DRILLED COORDINATES (BIG177H5) (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

Table with columns: G-TM-#, ACRES. Lists well identifiers and acreage.

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) NAD83 UTM (M) N. 4381,210.508 E. 632,730.875



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 DIVISION OF ENVIRONMENTAL PROTECTION.

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 6808B177H5A2D.wbg

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE SEE NOTE 2

WELL TYPE: OIL GAS X INJECTION WASTE DISPOSAL "GAS" PRODUCTION X STORAGE DEEP SHALLOW X

LOCATION: PAD ELEVATION 811' DISTRICT GRANT SURFACE OWNER COASTAL FOREST RESOURCES CO. d/b/a COASTAL TIMBERLANDS CO.

PROPOSED WORK: DRILL CONVERT X DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6880'

WELL OPERATOR: EQT PRODUCTION COMPANY
ADDRESS: 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

DESIGNATED AGENT: JASON RANSON
ADDRESS: 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

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

STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR LICENSED NO. 849

REVISIONS: DATE MAY 4 2017 REVISED 10/26/17 10/31/17 12/02/17 & 02/20/18

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

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

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

**BIG177
BIG177H5
EQT PRODUCTION COMPANY**

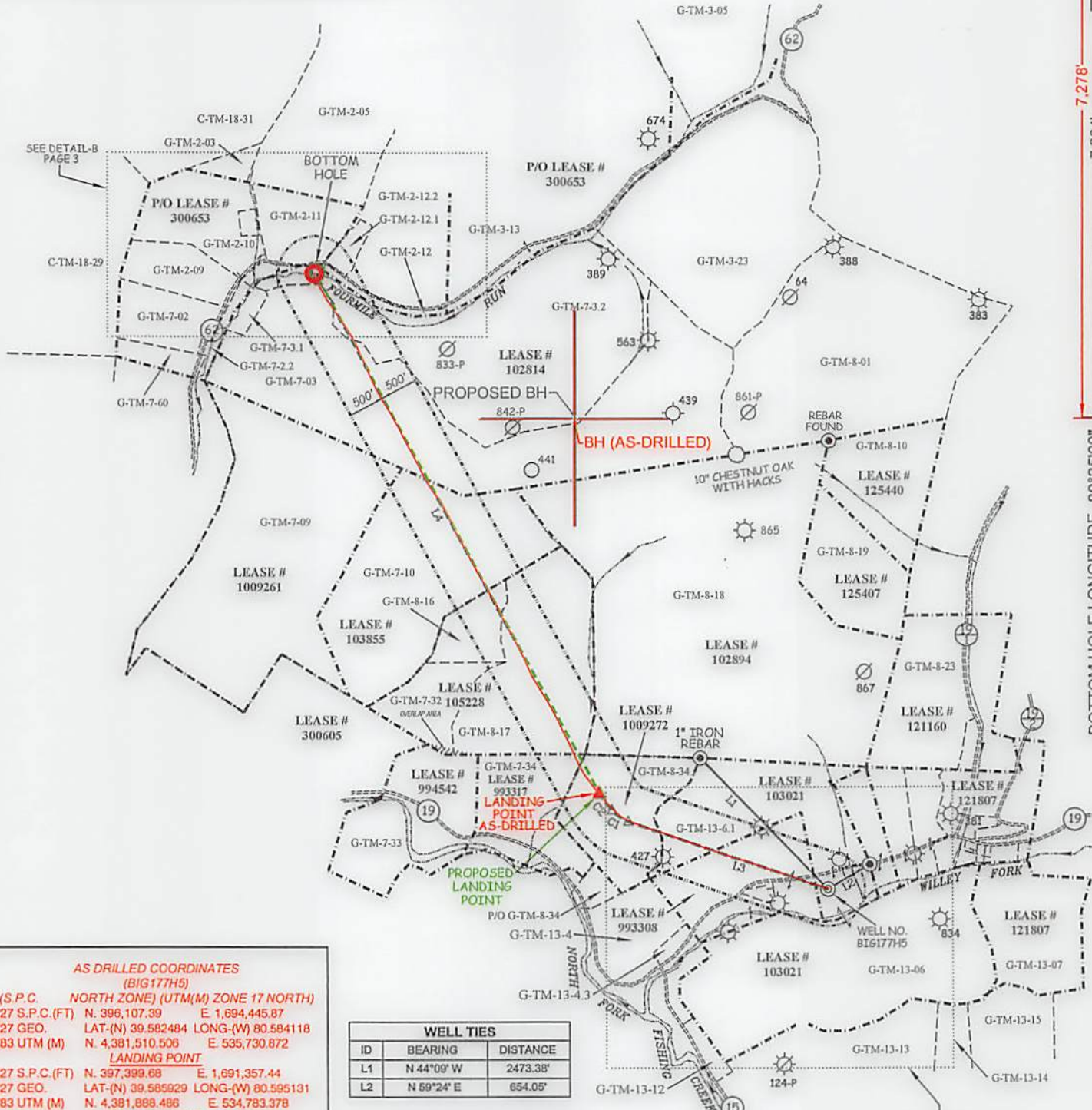
BOTTOM HOLE LATITUDE 39°37'30"
7,206' 7,224'

TH

80°35'00"

80°35'00"

NAD'27 GRID NORTH



AS DRILLED COORDINATES (BIG177H5)

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'27 S.P.C.(FT) N. 396,107.39 E. 1,694,445.87
 NAD'27 GEO. LAT-(N) 39.582484 LONG-(W) 80.594118
 NAD'83 UTM (M) N. 4,381,510.506 E. 535,730.872

LANDING POINT
 NAD'27 S.P.C.(FT) N. 397,399.68 E. 1,691,357.44
 NAD'27 GEO. LAT-(N) 39.585929 LONG-(W) 80.595131
 NAD'83 UTM (M) N. 4,381,888.486 E. 534,783.378

BOTTOM HOLE
 NAD'27 S.P.C.(FT) N. 404,401.20 E. 1,687,543.13
 NAD'27 GEO. LAT-(N) 39.605021 LONG-(W) 80.608970
 NAD'83 UTM (M) N. 4,384,002.146 E. 533,585.766

WELL TIES

ID	BEARING	DISTANCE
L1	N 44°09' W	2473.38'
L2	N 59°24' E	654.05'

BUILD OUT DATA

ID	BEARING	DISTANCE
L3	N 71°20' W	2846.20'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	271.63'	566.82'	N 64°49'46" W	269.04'
C2	264.73'	1045.27'	N 35°30'40" W	264.02'

LATERAL DATA

ID	BEARING	DISTANCE
L4	N 28°30' W	7995.46'

AS-DRILLED TOTAL LATERAL LENGTH = 7987.44'



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www.slsurvey.com

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'27 S.P.C.(FT) N. 396,107.39 E. 1,694,445.87
 NAD'27 GEO. LAT-(N) 39.582484 LONG-(W) 80.594118
 NAD'83 UTM (M) N. 4,381,510.506 E. 535,730.872

LANDING POINT
 NAD'27 S.P.C.(FT) N. 397,387.89 E. 1,691,375.99
 NAD'27 GEO. LAT-(N) 39.585997 LONG-(W) 80.595065
 NAD'83 UTM (M) N. 4,381,884.989 E. 534,789.090

BOTTOM HOLE
 NAD'27 S.P.C.(FT) N. 404,414.44 E. 1,687,560.89
 NAD'27 GEO. LAT-(N) 39.605058 LONG-(W) 80.608908
 NAD'83 UTM (M) N. 4,384,006.271 E. 533,591.110



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

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- LEASE LINE
- SURFACE LINE
- PROPOSED WELL LATERAL
- AS-DRILLED WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- GRANT DISTRICT TAX MAP-PARCEL G-TM-00-00
- CENTER DISTRICT TAX MAP-PARCEL C-TM-00-00

SCALE 1" = 2000' FILE NO. 6806PBIG177H5AD.dwg
 DATE MAY 4, 20 17
 REVISED 10/26/17, 10/31/17, 12/05/17 & 02/20/18

OPERATORS WELL NO. BIG177H5
 API WELL NO. 47 — 103 — 03189
 STATE COUNTY PERMIT

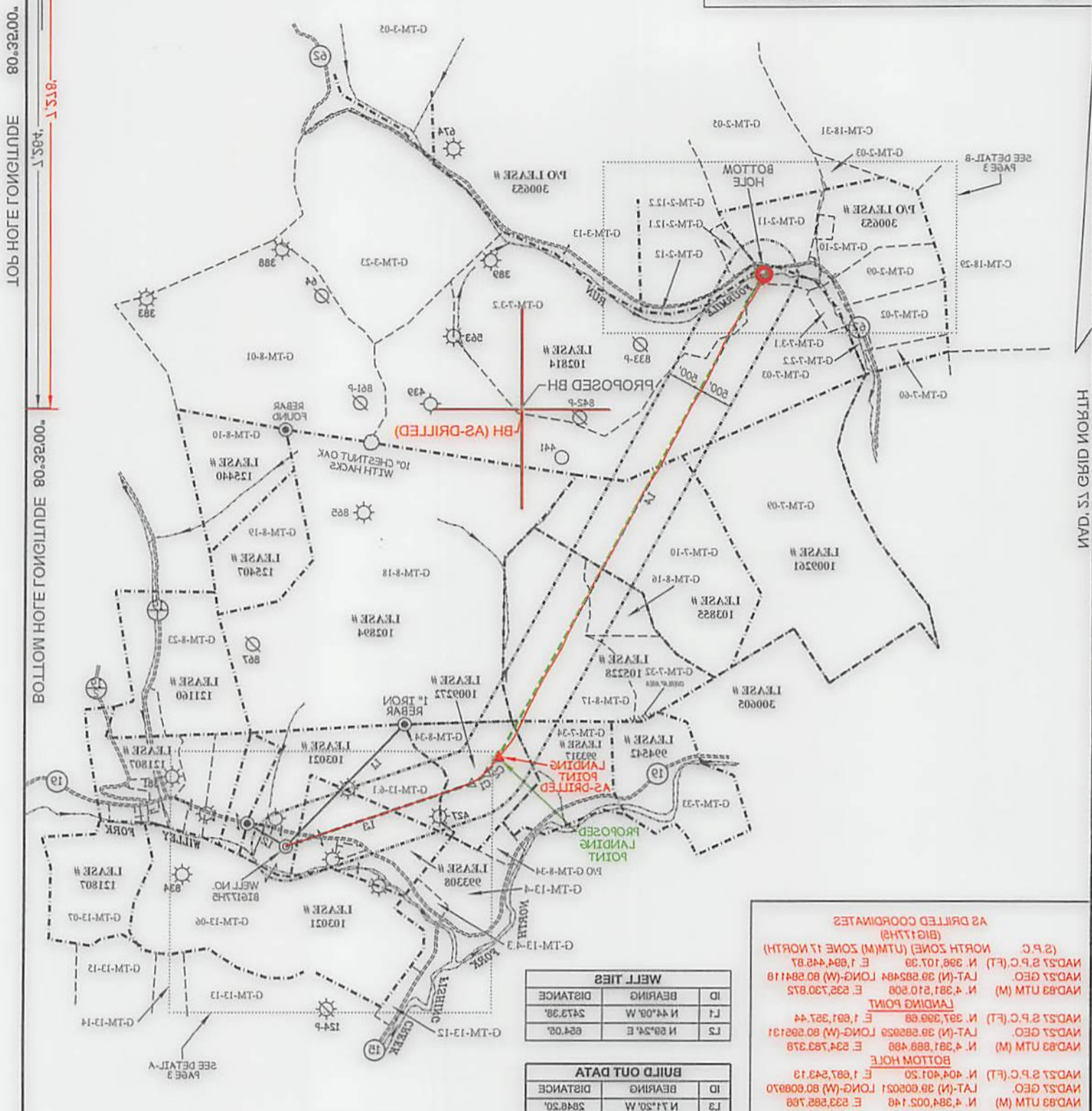
WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JASON RANSON
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

EQT PRODUCTION COMPANY
BIG177HS
BIG177

TOP HOLE LATITUDE 39°35'00"
 BOTTOM HOLE LATITUDE 39°37'30"
 1.554'

309.0'
 1.564'



CURVE			
C1	271.63'	588.85'	N 84°48'48" W
C2	204.73'	1048.23'	N 38°30'40" W
C3	N 71°20' W	248.50'	

BUILD OUT DATA			
I3	N 71°20' W	248.50'	
I2	N 69°24' E	664.08'	
I1	N 44°08' W	247.38'	

WELL TIES			
I2	N 69°24' E	664.08'	
I1	N 44°08' W	247.38'	
I3	N 71°20' W	248.50'	

LATERAL DATA			
I4	N 28°30' W	788.48'	

BOTTOM HOLE			
IND27 S.P.C.(FT)	N 404°41'20"	E 1,687,543.13	
IND27 GEO.	LAT-(N) 39.682058	LONG-(W) 80.608970	
IND27 UTM (M)	N 4,384,005.148	E 633,882.788	

LANDING POINT			
IND27 S.P.C.(FT)	N 387,387.89	E 1,691,327.44	
IND27 GEO.	LAT-(N) 39.682484	LONG-(W) 80.684118	
IND27 UTM (M)	N 4,381,810.808	E 632,730.875	

AS DRILLED COORDINATES (BIG177HS)			
IND27 S.P.C.(FT)	N 388,107.30	E 1,694,442.87	
IND27 GEO.	LAT-(N) 39.682484	LONG-(W) 80.684118	
IND27 UTM (M)	N 4,381,810.808	E 632,730.875	

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 www.landenergy.com

LEGEND

- LEASE LINE
- SURFACE LINE
- PROPOSED WELL
- LATERAL
- AS-DRILLED WELL
- LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- GRANT DISTRICT
- TAX MAP-PARCEL
- CENTER DISTRICT
- TAX MAP-PARCEL

COUNTY NAME
PERMIT

VICTOR MOYERS
 LICENSED PROFESSIONAL SURVEYOR
 No. 849
 STATE OF WEST VIRGINIA

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

WELL OPERATOR
 EQT PRODUCTION COMPANY
ADDRESS
 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330

DESIGNATED AGENT
 JASON RANSON
ADDRESS
 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330

NO. STATE
COUNTY
PERMIT
WELL
47 - 103 - 03189
OPERATORS WELL NO.
BIG177HS

REVISED
 10/28/17, 10/31/17, 12/05/17 & 02/20/18

DATE
 MAY 4, 20 17

SCALE
 1" = 5000'

FILE NO.
 8808BIG177HS.D.gwg

**BIG177
BIG177H5
EQT PRODUCTION COMPANY**

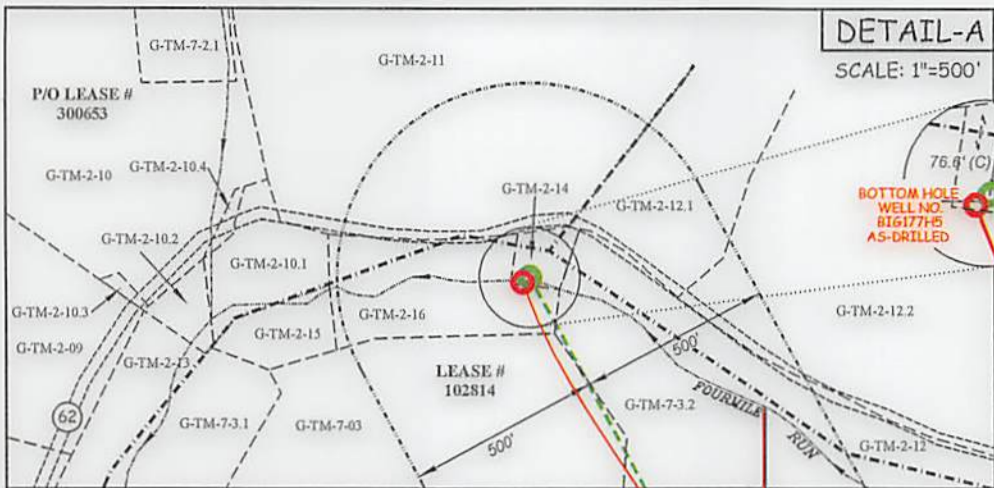
BOTTOM HOLE LATITUDE 39°37'30"
7,206' 7,224'

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80°35'00"
80°35'00"

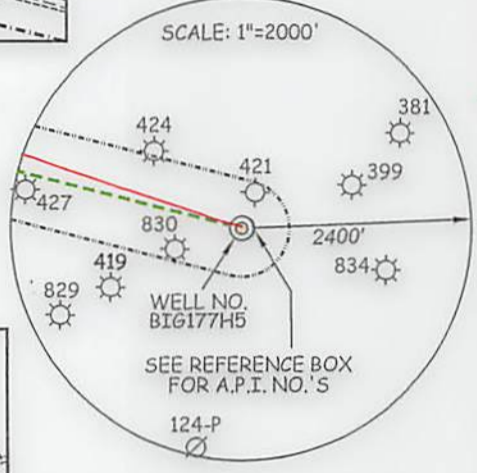
80°35'00"
80°35'00"

NAD 83 GRID NORTH



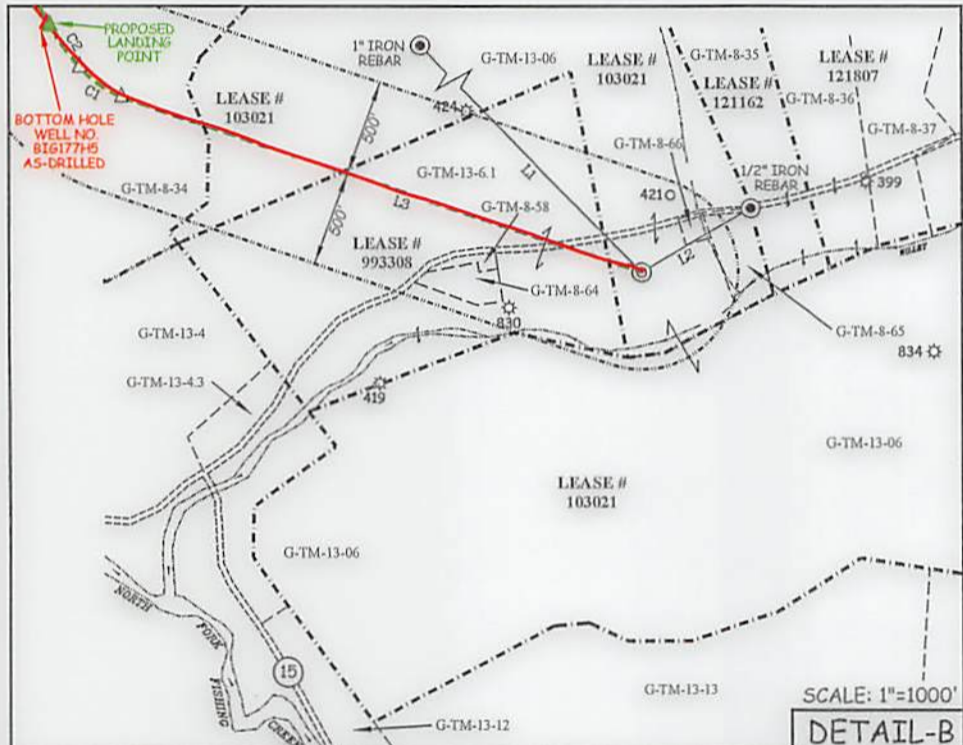
DETAIL-A

SCALE: 1"=500'



SCALE: 1"=2000'

PROPOSED BH
BH (AS-DRILLED)



SCALE: 1"=1000'

ROYALTY OWNERS		
COASTAL FOREST RESOURCES CO. db/a COASTAL TIMBERLAND CO., ET AL	57.5 AC±	LEASE NO. 993308
KEVIN GOFF	48.25 AC±	LEASE NO. 1009272
HIGGINS FAMILY TRUST ET AL	51.750 AC±	LEASE NO. 993317
IRREVOCABLE INTERVIVOS TRUST OF BILLY J. HIGGINS & FRANCES J. HIGGINS, ET AL	142.5 AC±	LEASE NO. 105228
SHIBEN ESTATES INC.	101 AC±	LEASE NO. 103855
JOSEPH SHIBEN & MINNIE SHIBEN ESTATE ET AL	1030 AC±	LEASE NO. 102814

WELL TIES		
ID	BEARING	DISTANCE
L1	N 44°09' W	2473.38'
L2	N 59°24' E	654.05'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 71°20' W	2846.20'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	271.63'	566.82'	N 64°49'46" W	269.04'
C2	264.73'	1045.27'	N 35°30'40" W	264.02'

LATERAL DATA		
ID	BEARING	DISTANCE
L4	N 28°30' W	7995.46'

AS-DRILLED TOTAL LATERAL LENGTH = 7987.44'



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

LEGEND

- LEASE LINE
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- PROPOSED WELL LATERAL
- AS-DRILLED WELL LATERAL
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- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- GRANT DISTRICT TAX MAP-PARCEL G-TM-00-00
- CENTER DISTRICT TAX MAP-PARCEL C-TM-00-00

SCALE SEE DETAILS FILE NO. 6806PBIG177H5AD.dwg
 DATE MAY 4, 20 17
 REVISED 10/26/17, 10/31/17, 12/05/17 & 02/20/18
 OPERATORS WELL NO. BIG177H5
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 STATE COUNTY PERMIT

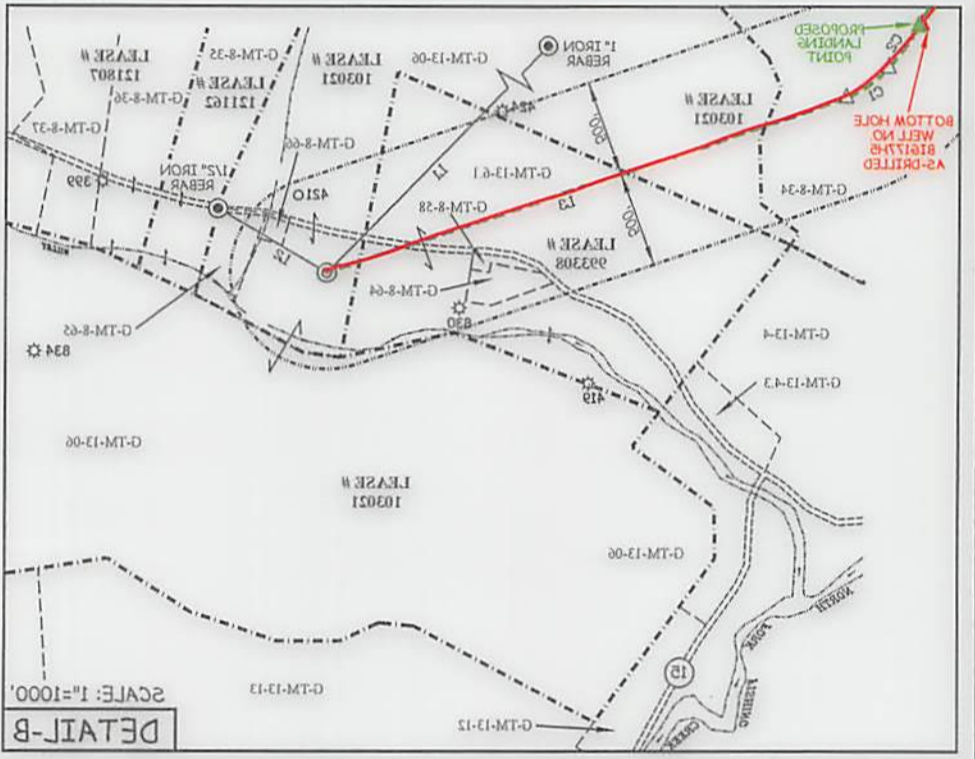
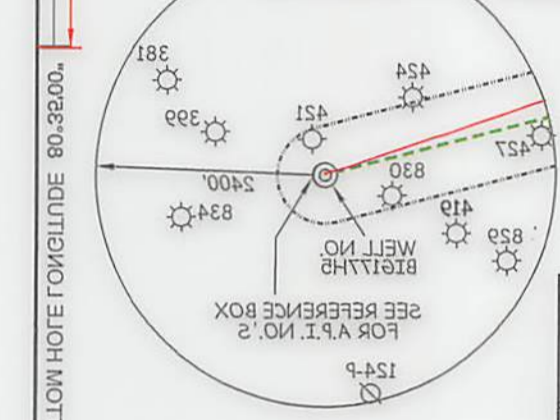
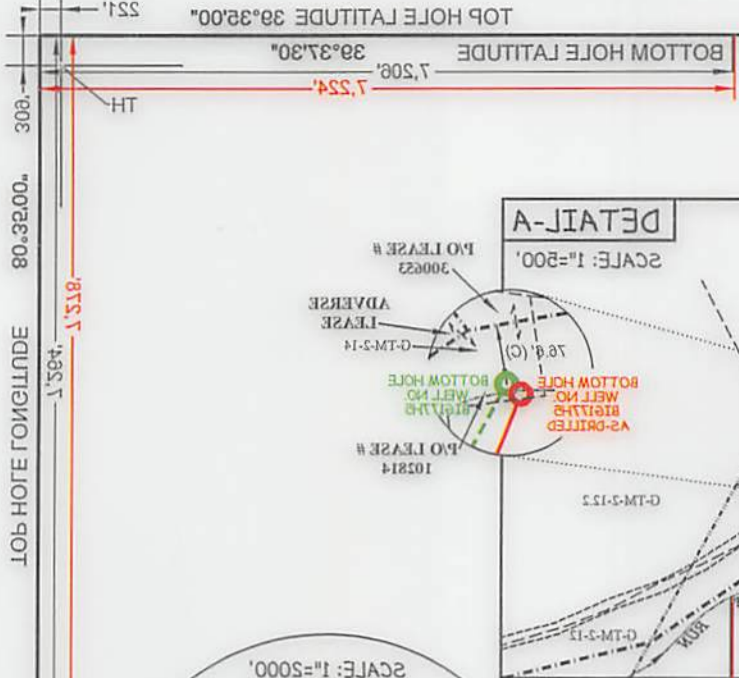
STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

DESIGNATED AGENT JASON RANSON
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

WELL OPERATOR EQT PRODUCTION COMPANY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

COUNTY NAME
PERMIT

BIG177
BIG177HS
EQT PRODUCTION COMPANY



ROYALTY OWNERS	
LEASE NO. 102914	MINNIE SHIBEN ESTATE ET AL
LEASE NO. 102914	JOSEPH SHIBEN &
LEASE NO. 102914	SHIBEN ESTATE INC.
LEASE NO. 102914	FRANCIS J. HIGGINS ET AL
LEASE NO. 102914	TRUST OF BILLY J. HIGGINS &
LEASE NO. 102914	IRREVOCABLE INTERVIVOS
LEASE NO. 102914	HIGGINS FAMILY TRUST ET AL
LEASE NO. 693317	KEVIN GOLF
LEASE NO. 1008232	TIMBERLAND CO., ET AL
LEASE NO. 1008232	RESOURCES CO.
LEASE NO. 693308	COASTAL FOREST

WELL TIES		
ID	BEARING	DISTANCE
L1	N 44°08' W	247.38'
L2	N 89°24' E	884.08'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 71°50' W	2946.20'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	271.83'	N 64°04' W	289.04'	289.04'
C2	284.73'	N 39°30' W	284.02'	284.02'

LATERAL DATA		
ID	BEARING	DISTANCE
L4	N 28°30' W	7882.48'

AS-DRILLED TOTAL LATERAL LENGTH = 7882.44'

LEGEND

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- PROPOSED WELL
- LATERAL
- AS-DRILLED WELL
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STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF OIL AND GAS

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 STATE OF WEST VIRGINIA

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NO. STATE COUNTY PERMIT
47-103-03189

OPERATORS WELL NO. **BIG177HS**

REVISED 10/28/17, 10/31/17, 12/05/17 & 02/20/18
 DATE MAY 4, 20 17
 SCALE SEE DETAILS FILE NO. 8808BIBIG177HSAD.dwg

WELL OPERATOR **EQT PRODUCTION COMPANY** ADDRESS **115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330**

DESIGNATED AGENT **JASON RANSON**

COUNTY NAME **PERMIT**

TOP HOLE LATITUDE 39°37.30"
 BOTTOM HOLE LATITUDE 39°37.30"
 7.508'
 1.534'

TOP HOLE LONGITUDE 80°32.00"
 BOTTOM HOLE LONGITUDE 80°32.00"
 1.594'

HTPORN DIBP TS ADAN

318