

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 516228 (H20)

API: 47 - 017 - 06739

Submission: Initial Amended

Notes: EQT has set 9-5/8" casing to 5288' and cemented to surface with 1811 sks of Class A cement. In the future, EQT plans to return to drill the remaining sections of the wellbore then complete stimulation operations and start production.

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

API 47-017-06739 County DODDRIDGE District SOUTH WEST / COVE
Quad OXFORD Pad Name OXF43 Field/Pool Name N/A
Farm name Cathy Jean Wetzel, et. al. Well Number 516228 (H20)
Operator (as registered with the OOG) EQT Production Company
Address 400 Woodcliff Drive City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,334,224.0 Easting 517,922.7
Landing Point of Curve Northing N/A Easting N/A
Bottom Hole Northing N/A Easting N/A

Elevation (ft) 1229 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) N/A

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Date permit issued 08/24/2016 Date drilling commenced 07/02/2017 Date drilling ceased 07/07/2017
Date completion activities began N/A Date completion activities ceased N/A
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 70,221,307,382 Open mine(s) (Y/N) depths N
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N
Coal depth(s) ft 321 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 017 - 06739 Farm name Cathy Jean Wetzel, et. al. Well number 516228 (H20)

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"	555'	NEW	J-55 54.5#	N/A	Y
Coal	12-3/8"	9-5/8"	5288'	NEW	P-110 40#	3136', 5010'	Y
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details 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	58	0	8
Surface	CLASS A	544	15.6	1.20	653	0	8
Coal							
Intermediate 1	CLASS A	1811	15.6	1.18 - 1.20	2144	0	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5331' MD Loggers TD (ft) N/A
 Deepest formation penetrated ELKS Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) N/A

Check all wireline logs run
 caliper density deviated/directional induction
 neutron resistivity gamma ray temperature

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Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING CONDUCTOR: NONE

SURFACE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE

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

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 _____

API 47- 017 - 06739 Farm name Cathy Jean Wetzel, et. al. Well number 516228 (H20)

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company _____
Address _____ City _____ State _____ Zip _____

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Well #516228 (H20) Final Formations API# 47-017-06739-00-00				
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
Sand / Shale	1	1	321	321
Waynesburg A	321	321	322	322
Sand / Shale	322	322	1084	1084
Maxton	1084	1084	1124	1124
Sand / Shale	1124	1124	1960	1960
Big Lime	1960	1960	2028	2028
Sand / Shale	2028	2028	2072	2072
Big Injun	2072	2072	2104	2104
Sand / Shale	2104	2104	2246	2246
Weir	2246	2246	2372	2372
Sand / Shale	2372	2372	2446	2446
Gantz	2446	2446	2528	2528
Fifty foot	2528	2528	2585	2585
Sand / Shale	2585	2585	2626	2626
Thirty foot	2626	2626	2662	2662
Sand / Shale	2662	2662	2668	2668
Gordon	2668	2668	2717	2717
Sand / Shale	2717	2717	2768	2768
Forth Sand	2768	2768	2835	2835
Sand / Shale	2835	2835	2948	2948
Bayard	2948	2948	3019	3019
Sand / Shale	3019	3019	3282	3282
Warren	3282	3282	3348	3348
Speechley	3348	3348	3853	3853
Balltown A	3853	3853	4211	4211
Sand / Shale	4211	4211	4451	4451
Riley	4451	4451	4827	4827
Benson	4827	4827	4921	4921
Sand / Shale	4921	4921	5129	5129
Alexander	5129	5129	5222	5222
Elks	5222	5222	5331	5331

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EQT PRODUCTION

Doddridge County, WV

OXF43

OXF43H20 (516228) -MRC - Slot 516228

Main

Design: 516228 As Drilled

Standard Survey Report

19 March, 2020

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EQT Survey Report

Database: EDM_Definitive	Local Co-ordinate Reference: Well OXF43H20 (516228) -MRC - Slot 516228
Company: EQT PRODUCTION	TVD Reference: KB @13 @ 1242.000usft
Project: Doddridge County, WV	MD Reference: KB @13 @ 1242.000usft
Site: OXF43	North Reference: Grid
Well: OXF43H20 (516228) -MRC	Survey Calculation Method: Minimum Curvature
Wellbore: Main	
Design: 516228 As Drilled	

Project Doddridge County, WV	
Map System: US State Plane 1927 (Exact solution)	System Datum: Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)	
Map Zone: West Virginia North 4701	

Site OXF43		
Site Position:	Northing: 241,913.000 usft	Latitude: 39.16
From: Map	Easting: 1,633,421.760 usft	Longitude: -80.79
Position Uncertainty: 0.000 usft	Slot Radius: 13-3/16 "	Grid Convergence: -0.8245 °

Well OXF43H20 (516228) -MRC - Slot 516228			
Well Position	+N/-S 0.000 usft	Northing: 241,913.000 usft	Latitude: 39.1569519
	+E/-W 0.000 usft	Easting: 1,633,421.760 usft	Longitude: 80.7927349°W
Position Uncertainty	0.000 usft	Wellhead Elevation: 0.000 usft	Ground Level: 1,229.000 usft

Wellbore Main					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/25/2015	-8.4196	66.6610	52,120.40574172

Design 516228 As Drilled					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.000			
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.000	0.000	0.000	156.934	

Survey Program	Date 3/19/2020			
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	5,331.000	Gyrodata Gyro (Main)	GYD_DP_MS Updated 06/27	Gyrodata Continuous Tool in

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.000	0.000	0.000	0.000	-1,242.000	0.000	0.000	0.000	0.00000	0.00000	0.00000
100.000	0.400	176.230	99.999	-1,142.001	-0.348	0.023	0.329	0.40000	0.40000	0.00000
200.000	0.780	196.300	199.994	-1,042.006	-1.350	-0.145	1.185	0.42696	0.38000	20.07000
300.000	1.070	205.480	299.981	-942.019	-2.846	-0.738	2.329	0.32477	0.29000	9.18000
400.000	1.320	209.820	399.959	-842.041	-4.688	-1.712	3.643	0.26570	0.25000	4.34000
500.000	1.360	215.870	499.932	-742.068	-6.649	-2.980	4.950	0.14695	0.04000	6.05000
600.000	1.420	218.570	599.902	-642.098	-8.580	-4.448	6.151	0.08881	0.06000	2.70000
700.000	1.460	218.720	699.871	-542.129	-10.542	-6.018	7.342	0.04018	0.04000	0.15000
800.000	1.490	218.770	799.837	-442.163	-12.550	-7.629	8.558	0.03003	0.03000	0.05000

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EQT
Survey Report

Database:	EDM_Definitive	Local Co-ordinate Reference:	Well OXF43H20 (516228) -MRC - Slot 516228
Company:	EQT PRODUCTION	TVD Reference:	KB @13 @ 1242.000usft
Project:	Doddridge County, WV	MD Reference:	KB @13 @ 1242.000usft
Site:	OXF43	North Reference:	Grid
Well:	OXF43H20 (516228) -MRC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main		
Design:	516228 As Drilled		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
900.000	1.510	217.470	899.803	-342.197	-14.609	-9.244	9.820	0.03947	0.02000	-1.30000
1,000.000	1.500	215.280	999.769	-242.231	-16.724	-10.802	11.155	0.05838	-0.01000	-2.19000
1,100.000	1.520	214.780	1,099.734	-142.266	-18.881	-12.314	12.547	0.02395	0.02000	-0.50000
1,200.000	1.620	215.060	1,199.696	-42.304	-21.128	-13.883	13.999	0.10029	0.10000	0.28000
1,300.000	1.740	214.340	1,299.653	57.653	-23.538	-15.551	15.564	0.12184	0.12000	-0.72000
1,400.000	1.940	210.210	1,399.602	157.602	-26.255	-17.259	17.394	0.23984	0.20000	-4.13000
1,500.000	1.920	202.320	1,499.545	257.545	-29.267	-18.747	19.582	0.26626	-0.02000	-7.89000
1,600.000	1.640	195.890	1,599.497	357.497	-32.193	-19.775	21.872	0.34352	-0.28000	-6.43000
1,700.000	1.410	199.650	1,699.462	457.462	-34.728	-20.581	23.888	0.25070	-0.23000	3.76000
1,800.000	1.390	201.390	1,799.432	557.432	-37.016	-21.437	25.658	0.04698	-0.02000	1.74000
1,900.000	1.510	199.490	1,899.400	657.400	-39.388	-22.319	27.494	0.12926	0.12000	-1.90000
2,000.000	1.680	197.450	1,999.361	757.361	-42.028	-23.198	29.579	0.17921	0.17000	-2.04000
2,100.000	1.860	196.090	2,099.313	857.313	-44.986	-24.087	31.952	0.18482	0.18000	-1.36000
2,200.000	1.750	197.050	2,199.263	957.264	-48.005	-24.985	34.378	0.11408	-0.11000	0.96000
2,300.000	1.630	200.900	2,299.220	1,057.220	-50.793	-25.940	36.570	0.16514	-0.12000	3.85000
2,400.000	1.620	201.170	2,399.180	1,157.180	-53.440	-26.958	38.606	0.01259	-0.01000	0.27000
2,500.000	1.570	202.930	2,499.141	1,257.141	-56.020	-28.002	40.571	0.06999	-0.05000	1.76000
2,600.000	1.450	202.980	2,599.106	1,357.106	-58.447	-29.030	42.400	0.12001	-0.12000	0.05000
2,700.000	1.370	206.110	2,699.076	1,457.076	-60.685	-30.050	44.060	0.11102	-0.08000	3.13000
2,800.000	1.350	207.740	2,799.048	1,557.048	-62.801	-31.124	45.586	0.04355	-0.02000	1.63000
2,900.000	1.350	209.900	2,899.020	1,657.020	-64.865	-32.260	47.040	0.05089	0.00000	2.16000
3,000.000	1.350	209.350	2,998.992	1,756.992	-66.913	-33.424	48.468	0.01296	0.00000	-0.55000
3,100.000	1.400	210.700	3,098.963	1,856.964	-68.990	-34.625	49.908	0.05957	0.05000	1.35000
3,200.000	1.380	209.980	3,198.934	1,956.934	-71.083	-35.851	51.354	0.02655	-0.02000	-0.72000
3,300.000	1.400	209.400	3,298.905	2,056.905	-73.191	-37.052	52.823	0.02445	0.02000	-0.58000
3,400.000	1.330	209.740	3,398.876	2,156.876	-75.263	-38.228	54.268	0.07047	-0.07000	0.34000
3,500.000	1.280	208.980	3,498.850	2,256.850	-77.247	-39.344	55.657	0.05291	-0.05000	-0.76000
3,600.000	1.310	208.660	3,598.825	2,356.825	-79.227	-40.434	57.052	0.03086	0.03000	-0.32000
3,700.000	1.320	209.420	3,698.798	2,456.798	-81.234	-41.548	58.461	0.02010	0.01000	0.76000
3,800.000	1.310	213.360	3,798.772	2,556.772	-83.192	-42.742	59.795	0.09095	-0.01000	3.94000
3,900.000	1.260	217.620	3,898.747	2,656.747	-85.017	-44.042	60.965	0.10779	-0.05000	4.26000
4,000.000	0.990	239.360	3,998.728	2,756.728	-86.328	-45.456	61.618	0.50032	-0.27000	21.74000
4,100.000	1.020	257.560	4,098.713	2,856.713	-86.960	-47.069	61.567	0.31926	0.03000	18.20000
4,200.000	1.210	273.430	4,198.694	2,956.694	-87.089	-48.992	60.932	0.36079	0.19000	15.87000
4,300.000	1.600	288.850	4,298.664	3,056.664	-86.575	-51.367	59.528	0.53987	0.39000	15.42000
4,400.000	1.800	295.990	4,398.620	3,156.620	-85.436	-54.100	57.409	0.29095	0.20000	7.14000
4,500.000	2.100	302.550	4,498.562	3,256.562	-83.762	-57.056	54.711	0.37347	0.30000	6.56000
4,600.000	2.460	307.490	4,598.483	3,356.483	-81.470	-60.303	51.330	0.40983	0.36000	4.94000
4,700.000	2.910	313.720	4,698.373	3,456.373	-78.409	-63.841	47.128	0.53572	0.45000	6.23000
4,800.000	3.230	317.190	4,798.230	3,556.230	-74.588	-67.590	42.144	0.36991	0.32000	3.47000
4,900.000	3.550	321.920	4,898.055	3,656.055	-70.084	-71.414	36.502	0.42475	0.32000	4.73000
5,000.000	3.750	323.300	4,997.852	3,755.852	-65.025	-75.278	30.334	0.21843	0.20000	1.38000

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Survey Report

Database: EDM_Definitive Company: EQT PRODUCTION Project: Doddridge County, WV Site: OXF43 Well: OXF43H20 (516228) -MRC Wellbore: Main Design: 516228 As Drilled	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Well OXF43H20 (516228) -MRC - Slot 516228 KB @13 @ 1242.000usft KB @13 @ 1242.000usft Grid Minimum Curvature
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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.000	3.710	327.510	5,097.640	3,855.640	-59.674	-78.970	23.964	0.27672	-0.04000	4.21000
5,200.000	4.320	328.320	5,197.394	3,955.394	-53.740	-82.686	17.048	0.61262	0.61000	0.81000
5,300.000	4.440	328.890	5,297.102	4,055.102	-47.221	-86.664	9.492	0.12765	0.12000	0.57000
Final Survey=5306' MD										
5,306.000	4.480	328.930	5,303.084	4,061.084	-46.821	-86.905	9.030	0.66868	0.66667	0.66667
Projection to Bottom Hole Depth=5331' MD - 20H 516228 BHL - 20H 516228 LP										
5,331.000	4.480	328.930	5,328.008	4,086.008	-45.149	-87.912	7.096	0.00000	0.00000	0.00000

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,306.000	5,303.084	-46.821	-86.905	Final Survey=5306' MD
5,331.000	5,328.008	-45.149	-87.912	Projection to Bottom Hole Depth=5331' MD

Checked By: _____	Approved By: _____	Date: _____
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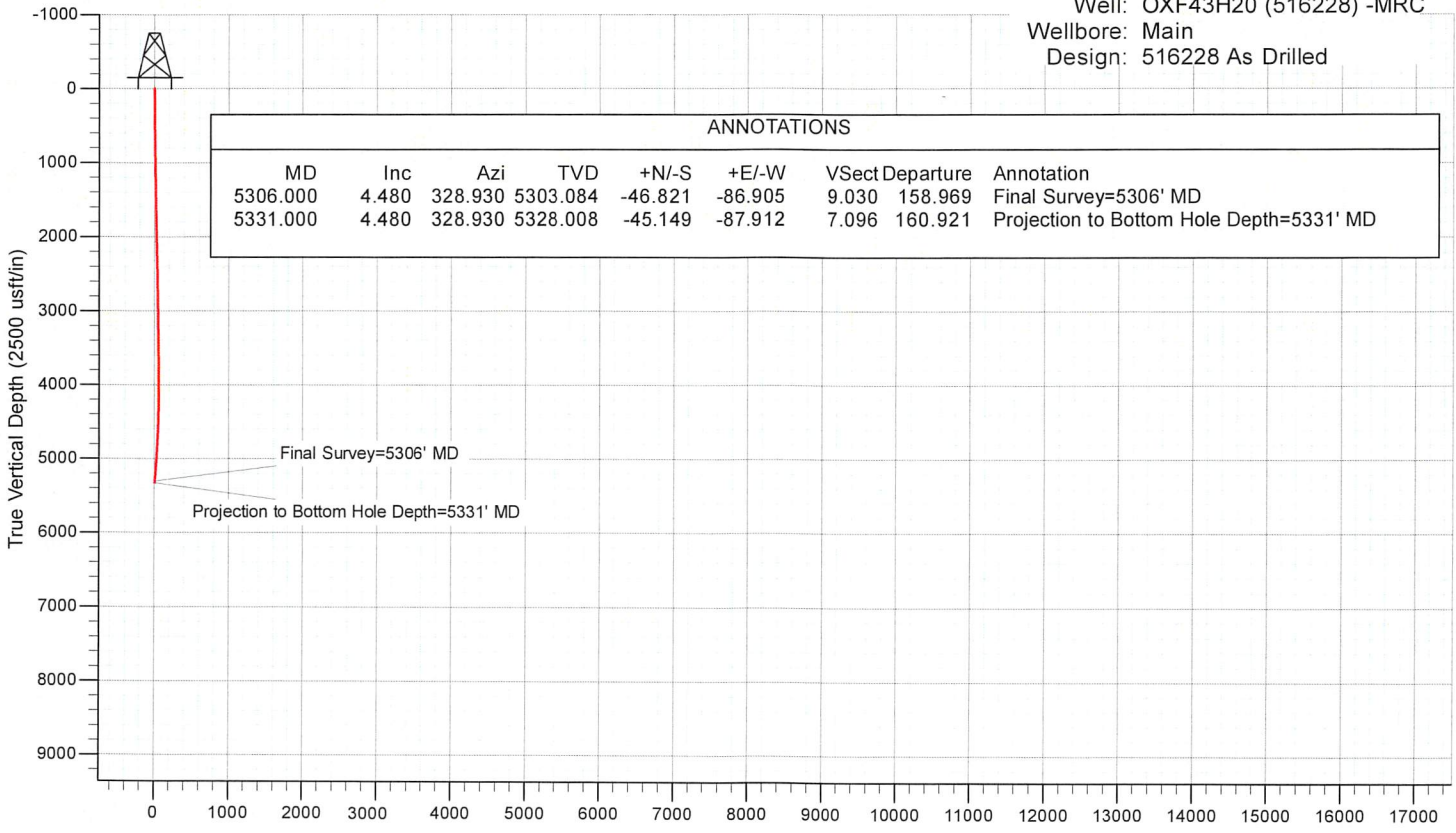


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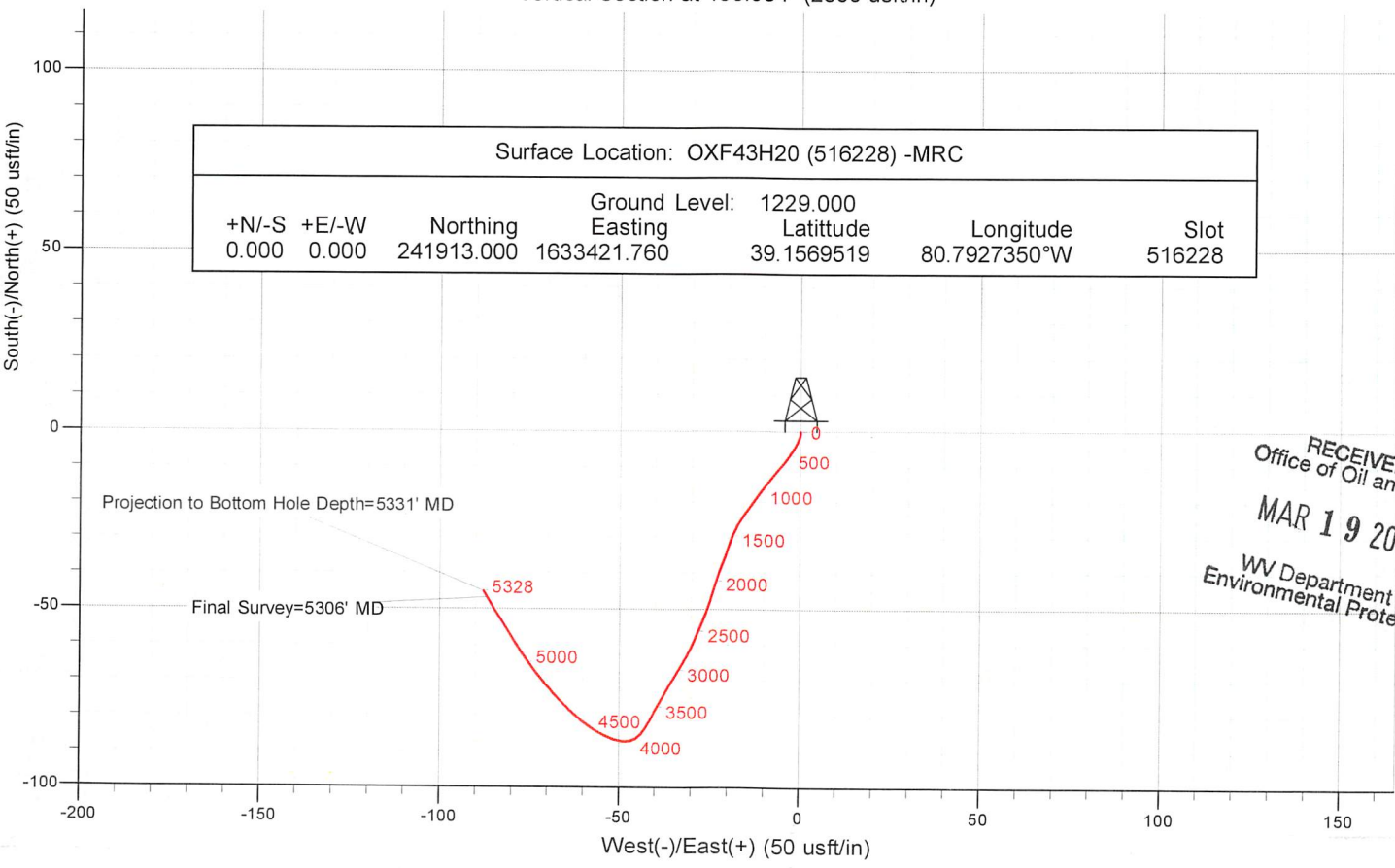
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KB Elevation= KB @13 @ 1242.000usft
 Ground Elevation= 1229.000
 All measurements were taken from KB Elevation

Project: Doddridge County, WV
 Site: OXF43
 Well: OXF43H20 (516228) -MRC
 Wellbore: Main
 Design: 516228 As Drilled



ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
5306.000	4.480	328.930	5303.084	-46.821	-86.905	9.030	158.969	Final Survey=5306' MD
5331.000	4.480	328.930	5328.008	-45.149	-87.912	7.096	160.921	Projection to Bottom Hole Depth=5331' MD



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EQT Production Company
400 Woodcliff Drive
Canonsburg, PA 15317
www.eqt.com

John Zavatchan
Project Specialist - Permitting
O: 724-746-9073
C: 412-584-3132
jzavatchan@eqt.com

March 19, 2020

Via FedEx Overnight

West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304

RE: WR-35 Well Operator's Report of Work
OXF43 Well Pad
Southwest/Cove District, Doddridge County

WVDEP Recipient,

Attached please find the completed WR-35 Well Operator's Reports of Well Work for the following wells:

- OXF43 516228 – Permit Number 47-017-06739
- OXF43 516229 – Permit Number 47-017-06740
- OXF43 516230 – Permit Number 47-017-06741
- OXF43 516232 – Permit Number 47-017-06742

EQT Production Company has submitted drill deeper permit applications to the Department for these wells. We intend to continue drilling operations later this year.

If you have any questions or comments regarding this application, please contact me at your earliest convenience.

Best Regards,

John Zavatchan
Landman - Permitting
jzavatchan@eqt.com
724-746-9073

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