

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

API 47-017-06632 <sup>06631</sup> County Doddridge District Southwest  
Quad Oxford 7.5' Pad Name Oxford 13 Pad Field/Pool Name ----  
Farm name I.L. Morris Well Number OXFD 13 IHS  
Operator (as registered with the OOG) Antero Resources Corporation  
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4335540m Easting 521817m  
Landing Point of Curve Northing 4335524.50m Easting 521772.10m  
Bottom Hole Northing 4334173m Easting 522699m

Elevation (ft) 1152' 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)  
Air - Foam & 4% KCL  
Mud - Polymer

Date permit issued 10/12/2018 Date drilling commenced 5/3/2015 Date drilling ceased 7/4/2015  
Date completion activities began 3/12/2020 Date completion activities ceased 4/18/2020  
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

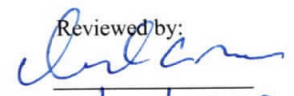
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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

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Freshwater depth(s) ft 38' Open mine(s) (Y/N) depths No  
Salt water depth(s) ft 1427', 1494', 1827' Void(s) encountered (Y/N) depths No  
Coal depth(s) ft 87' Cavern(s) encountered (Y/N) depths No  
Is coal being mined in area (Y/N) No

Reviewed by:  
  
2/14/2020

API 47-017 - 06632

Farm name I.L. Morris

Well number OXFD 13 IHS

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	24"	20"	112'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	1098'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2847'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	11913'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	7190'		4.7#, N-80		
Packer type and depth set		N/A					

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Class A	514 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	361 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	n/a sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	169 sx (Lead) 2489 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.53 (Lead), 1.83 (Tail)		-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 11935' MD, 6989' TVD (BHL), 6990' (Deepest Point Drilled)

Loggers TD (ft) 11935' MD

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6300'

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 - 0  
Surface - 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface  
Intermediate - 1 above float joint, 1 above float collar, 1 every 4th joint to surface  
Production - 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

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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 N/A



API 47- 017 - 06632 Farm name I.L. Morris Well number OXFD 13 IHS

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6902' (TOP)</u> TVD	<u>7250' (TOP)</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 2800 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 302 mcfpd Oil 1 bpd NGL --- bpd Water 1 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

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

**\*PLEASE SEE ATTACHED EXHIBIT 3**


Please insert additional pages as applicable.

Drilling Contractor Frontier Drilling LLC  
Address 562 Spring Run Road City Pennsboro State WV Zip 26415

Logging Company Allied Horizontal Wireline Services  
Address 381 Colonial Manor Road City North Huntington State PA Zip 15642

Cementing Company C&J Energy Services  
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Baker Hughes  
Address 837 Philippi Pike City Clarksburg State WV Zip 26301

Please insert additional pages as applicable.

Completed by Megan Griffith Telephone 303-357-7223  
Signature  Title Permitting Agent Date 7/21/20

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API 47-017-06631 Farm Name I.L. Morris Well Number OXFD 13 IHS

**EXHIBIT 1**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	2/27/2020	11849	11685.0146	60	Marcellus
2	2/27/2020	11649.81752	11485.8321	60	Marcellus
3	2/28/2020	11450.63504	11286.6496	60	Marcellus
4	2/29/2020	11251.45255	11087.4672	60	Marcellus
5	2/29/2020	11052.27007	10888.2847	60	Marcellus
6	3/1/2020	10853.08759	10689.1022	60	Marcellus
7	3/1/2020	10653.90511	10489.9197	60	Marcellus
8	3/2/2020	10454.72263	10290.7372	60	Marcellus
9	3/2/2020	10255.54015	10091.5547	60	Marcellus
10	3/3/2020	10056.35766	9892.37226	60	Marcellus
11	3/3/2020	9857.175182	9693.18978	60	Marcellus
12	3/4/2020	9657.992701	9494.0073	60	Marcellus
13	3/4/2020	9458.810219	9294.82482	60	Marcellus
14	3/5/2020	9259.627737	9095.64234	60	Marcellus
15	3/5/2020	9060.445255	8896.45985	60	Marcellus
16	3/6/2020	8861.262774	8697.27737	60	Marcellus
17	3/6/2020	8662.080292	8498.09489	60	Marcellus
18	3/6/2020	8462.89781	8298.91241	60	Marcellus
19	3/7/2020	8263.715328	8099.72993	60	Marcellus
20	3/7/2020	8064.532847	7900.54745	60	Marcellus
21	3/7/2020	7865.350365	7701.36496	60	Marcellus
22	3/8/2020	7666.167883	7502.18248	60	Marcellus
23	3/9/2020	7466.985401	7303	60	Marcellus

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API 47-017-06631 Farm Name I.L Morris Well Number OXFD 13 IHS

**EXHIBIT 2**

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	2/27/2020	81.78	8110	6027	4391	401800	7384.381	N/A
2	2/27/2020	77.12	7626	7197	4559	361380	7392.952	N/A
3	2/28/2020	85.96	8163	6543	4127	403620	7540.81	N/A
4	2/29/2020	85.25	8237	4535	3557	403200	7178.048	N/A
5	2/29/2020	81.3	7825	6203	4156	399400	7368.333	N/A
6	3/1/2020	85.5	7821	6131	4344	395740	8193.262	N/A
7	3/1/2020	84.28	8002	6056	3944	401180	7275.714	N/A
8	3/2/2020	83.03	8243	6294	3992	404200	7229.214	N/A
9	3/2/2020	85.35	8110	6318	4050	399680	7250.524	N/A
10	3/3/2020	85.81	8079	6062	3983	403520	6843.048	N/A
11	3/3/2020	85.93	8072	6006	3983	402200	7124.381	N/A
12	3/4/2020	85.87	8174	6125	3840	403680	7047.286	N/A
13	3/4/2020	85.75	7970	6608	3936	401760	7133.167	N/A
14	3/5/2020	85.76	8076	5631	3978	398140	7071.381	N/A
15	3/5/2020	85.84	7871	6116	4053	401820	7030.095	N/A
16	3/6/2020	85.9	7907	6340	3774	399200	6957.429	N/A
17	3/6/2020	85.58	7737	6077	3812	402780	7021.762	N/A
18	3/6/2020	85.9	7906	6389	3919	401700	7044.5	N/A
19	3/7/2020	85.9	7911	6386	4031	404900	6973.762	N/A
20	3/7/2020	85.26	8014	6059	4496	396720	6979.167	N/A
21	3/7/2020	85.9	8125	5985	3964	396020	6893.238	N/A
22	3/8/2020	65.67	7775	6314	4052	403720	7062.905	N/A
23	3/9/2020	85.9	7670	6934	3968	404280	7070.262	N/A
	<b>AVG.</b>	<b>83.9</b>	<b>7,975</b>	<b>6,189</b>	<b>4,040</b>	<b>9,190,640</b>	<b>165,066</b>	<b>TOTAL</b>

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## EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Silty Sandstone	120	175	120	175
Sandstone	175	230	175	230
Silty sandstone tr coal	230	595	230	595
Shaly siltstone tr coal	595	610	595	610
Shaly siltstone	610	705	610	705
Silty Sandstone	705	850	705	850
Silty sandstone	850	920	850	920
Silty Sandstone	920	1,190	920	1,190
Siltstone	1,190	1,310	1,190	1,310
Siltstone tr coal	1,310	1,480	1,310	1,480
Sandstone tr coal	1,480	1,800	1,480	1,800
Shaly siltstone tr coal	1,800	1,855	1,800	1,855
Silty sandstone tr coal	1,855	2,021	1,855	2,021
Big Lime	2,021	2,742	1,992	2,742
Fifty Foot Sandstone	2,742	2,832	2,713	2,832
Gordon	2,832	3,158	2,803	3,159
Fifth Sandstone	3,158	3,205	3,130	3,207
Bayard	3,205	3,696	3,178	3,715
Speechley	3,696	3,925	3,686	3,953
Balltown	3,925	4,623	3,924	4,687
Bradford	4,623	5,056	4,658	5,143
Benson	5,056	5,277	5,114	5,375
Alexander	5,277	6,698	5,346	6,863
Sycamore	6,521	6,669	6,669	6,834
Middlesex	6,669	6,805	6,834	7,025
Burkett	6,805	6,845	7,025	7,100
Tully	6,845	6,902	7,100	7,250
Marcellus	6,902	NA	7,250	NA

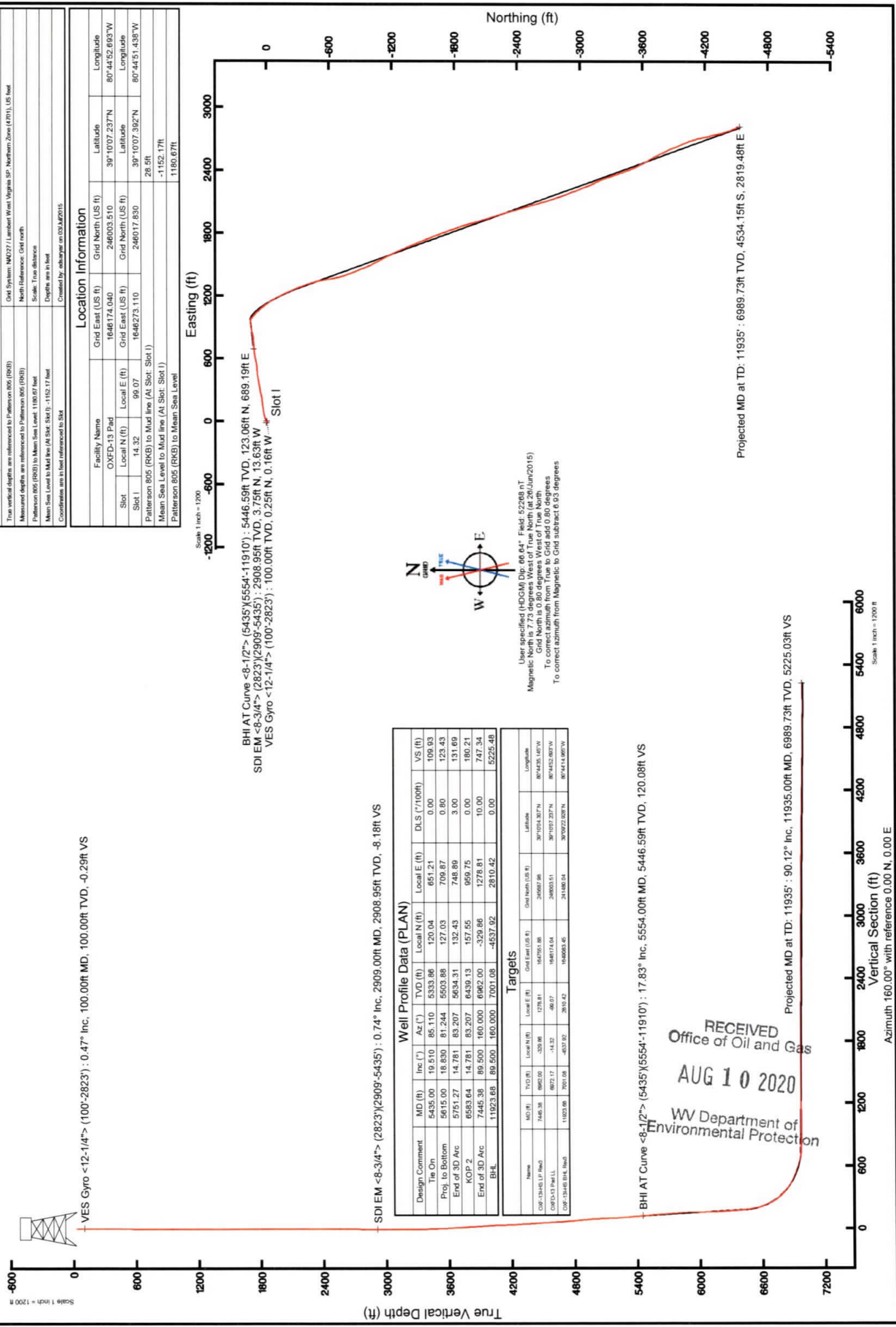
\*Please note Antero determines formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

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Location: Doddridge Co., WV  
 Facility: OXF-131-HS  
 Well: OXF-131-HS  
 Wellbore: OXF-131-HS-PWB

Plot reference weights is OXF-131-HS PWF Rev 0.0  
 True vertical depths are referenced to Patterson 805 (RKB)  
 North Reference: Grid North  
 Measured depths are referenced to Patterson 805 (RKB)  
 Main Sea Level to Mud line (At Slot: Slot 1) -1192.17 feet  
 Coordinates are in feet referenced to Slot

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
OXFD-13 Pad	1646174.040	2460003.510	80°44'52.093"W
Slot	Local E (ft)	Grid North (US ft)	Longitude
Slot 1	14.32	2460173.110	80°44'51.438"W
Patterson 805 (RKB) to Mud line (At Slot: Slot 1) -1152.17ft			
Patterson 805 (RKB) to Mean Sea Level 1190.07ft			



Scale: 1 inch = 1200'

BHI AT Curve <8-1/2"> (5435)(5554-11910) : 5446.59ft TVD, 123.06ft N, 689.19ft E  
 SDI EM <8-3/4"> (2823)(2909-5435) : 2908.95ft TVD, 3.75ft N, 13.63ft W  
 VES Gyro <12-1/4"> (100-2823) : 100.00ft TVD, 0.25ft N, 0.16ft W



Well Profile Data (PLAN)			
Design Comment	MD (ft)	Az (°)	TVD (ft)
Top On	5435.00	19.510	5333.86
Proj. to Bottom	5815.00	18.830	5503.88
End of 3D Arc	5751.27	14.781	5834.31
KOIP 2	6583.64	14.781	6439.13
End of 3D Arc	7446.38	89.500	6962.00
BHL	11923.68	89.500	7001.08

Targets			
Name	MD (ft)	TVD (ft)	Local E (ft)
OXF-131-HS LP Head	7446.38	6962.00	-329.86
OXFD-13 Pad (L)	11923.68	7001.08	-41.82
OXF-131-HS Head	11923.68	7001.08	-4537.92

Name	MD (ft)	TVD (ft)	Local E (ft)	Local N (ft)	Latitude	Longitude
OXF-131-HS LP Head	7446.38	6962.00	-329.86	1847261.86	39°10'14.307"N	80°44'52.093"W
OXFD-13 Pad (L)	11923.68	7001.08	-41.82	1848174.04	39°10'07.237"N	80°44'52.093"W
OXF-131-HS Head	11923.68	7001.08	-4537.92	1848263.45	39°09'23.087"N	80°44'14.867"W

Projected MD at TD: 11935' : 90.12° Inc, 11935.00ft MD, 6989.73ft TVD, 5225.03ft VS

Projected MD at TD: 11935' : 17.83° Inc, 5554.00ft MD, 5446.59ft TVD, 120.08ft VS

Projected MD at TD: 11935' : 6989.73ft TVD, 4534.15ft S, 2819.48ft E

Scale: 1 inch = 1200'

Vertical Section (ft)

Horizontal Section (ft)

Azimuth 160.00° with reference 0.00 N, 0.00 E

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/26/2020
Job End Date:	3/9/2020
State:	West Virginia
County:	Doddridge
API Number:	47-017-06631-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Oxford 13 IHS
Latitude:	39.16872100
Longitude:	-80.74762100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,990
Total Base Water Volume (gal):	7,104,885
Total Base Non Water Volume:	0

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## 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
Fresh Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.38895	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.18173	



				Crystalline silica, quartz	14808-60-7	100.00000	13.39928	
				Hydrochloric acid	7647-01-0	30.00000	0.04283	
				Inorganic salt	Proprietary	30.00000	0.01153	
				Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01153	
				Acrylamide acrylate polymer	Proprietary	30.00000	0.01153	
				Guar gum	9000-30-0	100.00000	0.00895	
				Methanol	67-56-1	100.00000	0.00433	
				Phosphoric Acid Salt	Proprietary	30.00000	0.00398	
				Glutaraldehyde	111-30-8	30.00000	0.00252	
				Sodium chloride	7647-14-5	5.00000	0.00066	
				Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides	68424-85-1	5.00000	0.00042	
				Ammonium persulfate	7727-54-0	100.00000	0.00017	
				Ethanol	64-17-5	1.00000	0.00008	
				Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00008	
				Modified thiourea polymer	Proprietary	30.00000	0.00008	
				Oxylated phenolic resin	Proprietary	30.00000	0.00005	
				Ethoxylated alcohols	Proprietary	5.00000	0.00001	
				Propargyl alcohol	107-19-7	5.00000	0.00001	
				Hexadecene	629-73-2	5.00000	0.00001	
				Formaldehyde	50-00-0	0.10000	0.00001	
				Phosphoric acid	7664-38-2	0.10000	0.00001	
				C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	

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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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LATITUDE 39°12'30"

11,089'

LATITUDE 39°10'00"

LONGITUDE 80°42'30"

14,395'

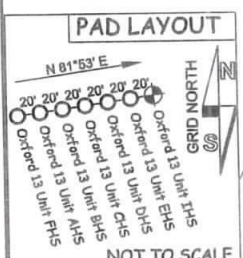
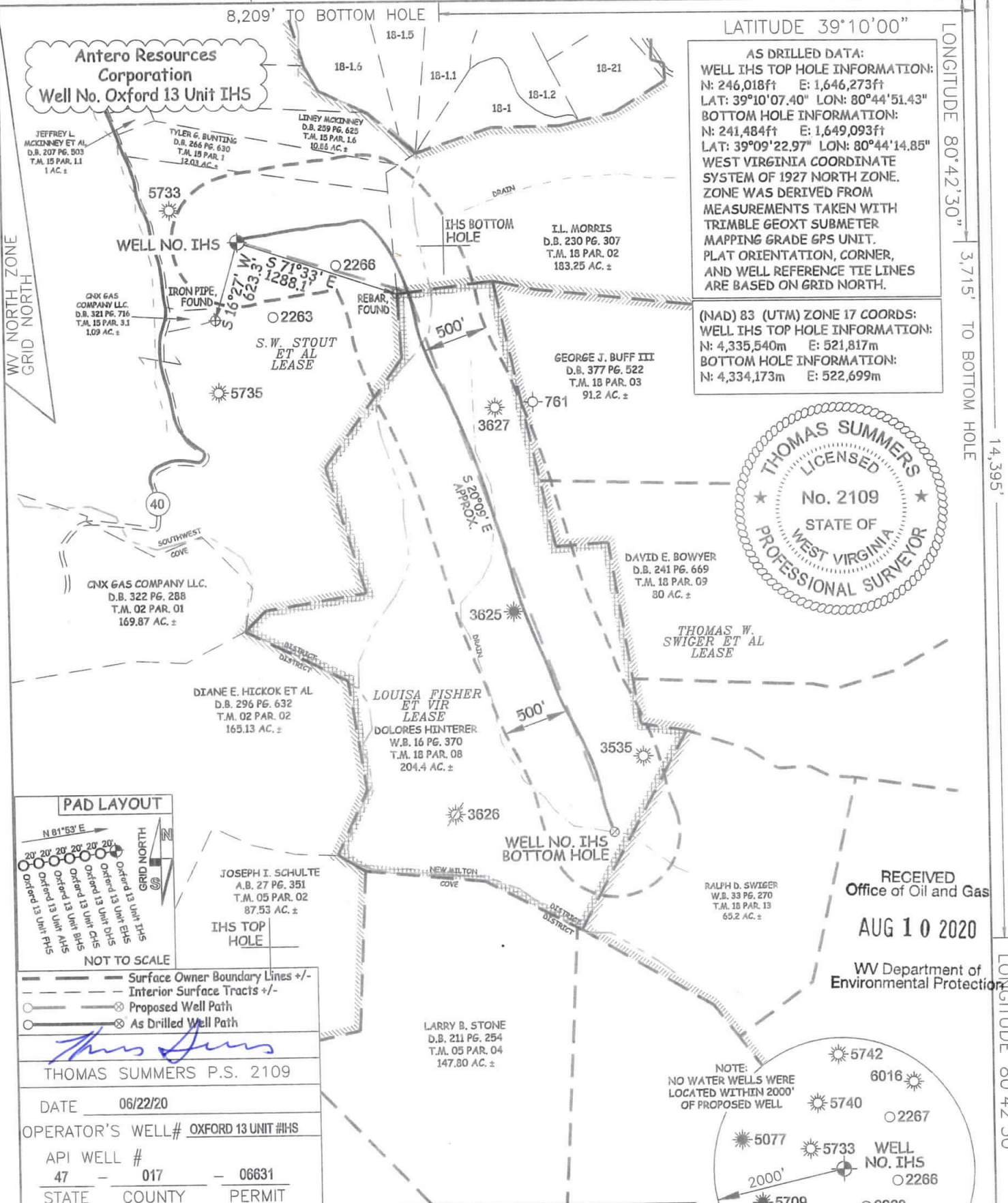
LONGITUDE 80°42'30"

COUNTY NAME PERMIT

Antero Resources Corporation  
Well No. Oxford 13 Unit IHS

AS DRILLED DATA:  
 WELL IHS TOP HOLE INFORMATION:  
 N: 246,018ft E: 1,646,273ft  
 LAT: 39°10'07.40" LON: 80°44'51.43"  
 BOTTOM HOLE INFORMATION:  
 N: 241,484ft E: 1,649,093ft  
 LAT: 39°09'22.97" LON: 80°44'14.85"  
 WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

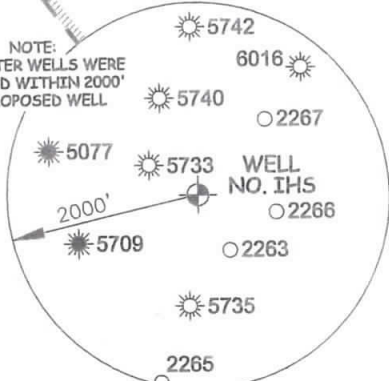
(NAD) 83 (UTM) ZONE 17 COORDS:  
 WELL IHS TOP HOLE INFORMATION:  
 N: 4,335,540m E: 521,817m  
 BOTTOM HOLE INFORMATION:  
 N: 4,334,173m E: 522,699m



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THOMAS SUMMERS P.S. 2109  
 DATE 06/22/20  
 OPERATOR'S WELL# OXFORD 13 UNIT #IHS  
 API WELL # 47 - 017 - 06631  
 STATE COUNTY PERMIT

NOTE:  
 NO WATER WELLS WERE LOCATED WITHIN 2000' OF PROPOSED WELL



- NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
- TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
- AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
- WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
- WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

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 RULES ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
 WILLOW LAND SURVEYING PLLC  
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

JOB # 20-005WA  
 DRAWING # OXFORD13IHSAD  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY SUBMETER  
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS  
 STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS  
 WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1,152' AS BUILT WATERSHED HEADWATERS MIDDLE ISLAND CREEK  
 QUADRANGLE NEW MILTON 7.5' DISTRICT SOUTHWEST COUNTY DODDRIDGE  
 SURFACE OWNER I. L. MORRIS ACREAGE 6,600.75 ACRES  
 OIL & GAS ROYALTY OWNER S. W. STOUT ET AL; LOUISA FISHER ET VIR LEASE ACREAGE 1,427 ACRES±; 204.4 ACRES±

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_  
 PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED \_\_\_ PLUG & ABANDON \_\_\_ CLEAN OUT & REPLUG \_\_\_  
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,989' TVD 11,935' MD  
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER  
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD  
 DENVER, CO 80202 CHARLESTON, WV 25313