

APPROVED

Page ___ of ___

WR-35
Rev. 8/23/13Received
Office of Oil & GasNAME: [Signature]
DATE: 6/14/17
State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47-017-06509 County Doddridge District Central
 Quad West Union 7.5' Pad Name Rock Run Pad Field/Pool Name -----
 Farm name George D. Lambert Well Number Wentz Unit 2H
 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 4350635m Easting 515976m
 Landing Point of Curve Northing 4350608.56m Easting 516238.66m
 Bottom Hole Northing 4347784m Easting 517407m

Elevation (ft) 1171' 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 7/15/2014 Date drilling commenced 10/27/2014 Date drilling ceased 12/31/2014
 Date completion activities began 8/8/2016 Date completion activities ceased 10/11/2016
 Verbal plugging (Y/N) N/A 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 112', 147', 295' Open mine(s) (Y/N) depths No
 Salt water depth(s) ft 750', 987' Void(s) encountered (Y/N) depths No
 Coal depth(s) ft 1580' Cavern(s) encountered (Y/N) depths No
 Is coal being mined in area (Y/N) No

Reviewed by: _____

09/15/2017

API 47-017 - 06509 Farm name George D. Lambert Well number Wentz Unit 2H

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"	40'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	401'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2525'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	14933'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6926'		4.7#, N-80		
Packer type and depth set		N/A					

Comment Details *Please note this well was drilled to 17580' however casing was only ran to 14933'. Inspector notified.

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	150 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	467 sx	15.6	1.18	279	0'	8 Hrs.
Coal							
Intermediate 1	Class A	927 sx	15.6	1.18	791	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1061 sx (Lead) 1294 sx (Tail)	14.5 (Lead), 15.2 (Tail)	1.30 (Lead), 1.86 (Tail)	2957	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 17580' MD, 6832' TVD (BHL) & 6866' TVD (Deepest Point Drilled) Loggers TD (ft) 17535' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 5986'

**** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Wentz Unit 1H API #47-017-06476). Please reference the wireline logs submitted with Form WR-35 for Wentz Unit 1H. A Cement Bond Log has been included with this submittal.**

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

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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WERE TRACERS USED Yes No TYPE OF TRACER(S) USED N/A

WV Department of Environmental Protection

API 47- 017 - 06509 Farm name George D. Lambert Well number Wentz Unit 2H

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6712' (TOP)	TVD	7199' (TOP) MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3600 psi Bottom Hole --- psi DURATION OF TEST --- hrs

OPEN FLOW Gas 13124 mcfpd Oil 19 bpd NGL --- bpd Water 382 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP		BOTTOM		DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
*PLEASE SEE ATTACHED EXHIBIT 3					

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Please insert additional pages as applicable.

Drilling Contractor Patterson - UTI Drilling Company, LLC
Address 207 Carlton Dr. City Eighty Four State PA Zip 15330

Logging Company Allied Horizontal Wireline Services
Address 381 Colonial Manor Rd. City North Huntingdon State PA Zip 15642

Cementing Company Nabors Completion & Production Services, Co.
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Stimulating Company Cal Frac Well Services
Address 717 17th Street, Suite 144B City Denver State CO Zip 80202

Please insert additional pages as applicable.

Completed by Samantha Klaas Telephone 303-357-6759
Signature *Samantha Klaas* Title Permitting Agent Date 05/05/2017

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

09/15/2017

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	8/8/2016	14672	14816	60	Marcellus
2	8/8/2016	14471	14640	60	Marcellus
3	8/8/2016	14270	14439	60	Marcellus
4	8/9/2016	14069	14239	60	Marcellus
5	8/9/2016	13869	14038	60	Marcellus
6	8/9/2016	13668	13837	60	Marcellus
7	8/10/2016	13467	13636	60	Marcellus
8	8/10/2016	13266	13435	60	Marcellus
9	8/10/2016	13065	13235	60	Marcellus
10	8/11/2016	12864	13034	60	Marcellus
11	8/11/2016	12664	12833	60	Marcellus
12	8/11/2016	12463	12632	60	Marcellus
13	8/12/2016	12262	12431	60	Marcellus
14	8/12/2016	12061	12231	60	Marcellus
15	8/12/2016	11860	12030	60	Marcellus
16	8/13/2016	11660	11829	60	Marcellus
17	8/13/2016	11459	11628	60	Marcellus
18	8/13/2016	11258	11427	60	Marcellus
19	8/14/2016	11057	11227	60	Marcellus
20	8/14/2016	10856	11026	60	Marcellus
21	8/15/2016	10656	10825	60	Marcellus
22	8/15/2016	10455	10624	60	Marcellus
23	8/15/2016	10254	10423	60	Marcellus
24	8/15/2016	10053	10223	60	Marcellus
25	8/16/2016	9852	10022	60	Marcellus
26	8/16/2016	9652	9821	60	Marcellus
27	8/16/2016	9451	9620	60	Marcellus
28	8/17/2016	9250	9419	60	Marcellus
29	8/17/2016	9049	9218	60	Marcellus
30	8/17/2016	8848	9018	60	Marcellus
31	8/17/2016	8648	8817	60	Marcellus
32	8/18/2016	8447	8616	60	Marcellus
33	8/18/2016	8246	8415	60	Marcellus
34	8/18/2016	8045	8214	60	Marcellus
35	8/18/2016	7844	8014	60	Marcellus
36	8/18/2016	7643	7813	60	Marcellus
37	8/18/2016	7443	7612	60	Marcellus
38	8/19/2016	7242	7411	60	Marcellus

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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	8/8/2016	60.4	7061	0	5098	325400	8035	N/A
2	8/8/2016	67.0	6920	5723	4395	324750	7920	N/A
3	8/8/2016	65.4	6885	6751	4328	326200	8679	N/A
4	8/9/2016	58.4	6614	6527	4363	326000	8495	N/A
5	8/9/2016	66.5	6922	5786	5140	324610	7769	N/A
6	8/9/2016	63.9	6917	5372	4996	325100	8648	N/A
7	8/10/2016	65.8	7128	5739	3756	325900	7897	N/A
8	8/10/2016	68.7	7016	5770	4541	327250	7936	N/A
9	8/10/2016	73.9	7212	7125	4287	330800	7803	N/A
10	8/11/2016	78.8	7450	6055	5046	323450	7867	N/A
11	8/11/2016	78.6	7521	5754	5576	323700	8098	N/A
12	8/11/2016	71.4	6942	5394	4447	325250	7736	N/A
13	8/12/2016	72.0	6911	6082	5060	332210	8710	N/A
14	8/12/2016	72.0	6911	5802	5254	330050	7967	N/A
15	8/12/2016	77.8	7117	5798	4123	330850	7829	N/A
16	8/13/2016	78.7	7241	5531	5212	325400	7712	N/A
17	8/13/2016	78.7	7097	5996	4547	322800	7665	N/A
18	8/13/2016	77.5	7039	5706	4737	325200	8315	N/A
19	8/14/2016	77.7	7105	5363	4989	324900	7743	N/A
20	8/14/2016	84.3	7044	5395	5181	324750	7677	N/A
21	8/15/2016	83.6	7312	5521	4931	324950	7637	N/A
22	8/15/2016	83.6	7266	5942	5008	328550	7975	N/A
23	8/15/2016	84.2	7153	5735	4971	325950	7878	N/A
24	8/15/2016	83.5	6946	5906	5038	325100	7516	N/A
25	8/16/2016	85.3	6913	5664	5033	326350	7569	N/A
26	8/16/2016	84.2	7095	5849	4860	325500	7555	N/A
27	8/16/2016	73.1	7259	6066	5058	324100	7705	N/A
28	8/17/2016	72.3	7163	5432	4627	322550	9479	N/A
29	8/17/2016	79.5	6929	5540	3826	323700	7344	N/A
30	8/17/2016	79.9	6850	5312	4934	323450	7239	N/A
31	8/17/2016	79.0	6875	5703	4954	323550	7481	N/A
32	8/18/2016	77.0	7394	5906	3856	324800	7594	N/A
33	8/18/2016	82.8	6834	5725	4547	325200	7524	N/A
34	8/18/2016	81.2	6700	5338	4712	324500	7573	N/A
35	8/18/2016	79.0	7084	5305	4314	324400	8289	N/A
36	8/18/2016	81.8	7511	5392	5008	289050	7864	N/A
37	8/18/2016	83.2	6796	5442	5088	326050	7520	N/A
38	8/19/2016	79.6	7152	5858	5282	277500	7474	N/A
AVG=		76.1	7,060	5,613	4,766	12,289,820	7,887	TOTAL

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EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD) From Surface	BOTTOM DEPTH (TVD) From Surface	TOP DEPTH (MD) From Surface	BOTTOM DEPTH (MD) From Surface
Fresh Water	112'	N/A	112'	N/A
Fresh Water	147'	N/A	147'	N/A
Fresh Water	295'	N/A	295'	N/A
Sandstone	0	97	0	97
Shale	97	577	97	577
Sandstone	577	777	577	777
Shale	777	1017	777	1017
Sandstone	1017	1097	1017	1097
Shale	1097	1177	1097	1177
Sandstone	1177	1217	1177	1217
Shale	1217	1317	1217	1317
Sandstone/siltstone	1317	1357	1317	1357
Shale	1357	1417	1357	1417
Sandstone	1417	1557	1417	1557
Trace Coal/Sandstone	1557	1597	1557	1597
Sandstone	1597	1737	1597	1737
Shale	1737	1837	1737	1837
Sandstone	1837	1877	1837	1877
Shale	1877	1637	1877	1637
Sandstone	1637	1997	1637	1997
Shale	1997	2149	1997	2152
Big Lime	2149	2600	2152	2603
Gantz Sand	2600	2736	2603	2739
Fifty Foot Sandstone	2736	2818	2739	2821
Gordon	2818	3143	2821	3146
Fifth Sandstone	3143	3860	3146	3863
Speechley	3860	4210	3863	4213
Baltown	4210	4652	4213	4655
Bradford	4652	5083	4655	5086
Benson	5083	5359	5086	5362
Alexander	5359	5512	5362	5515
Elk	5512	6031	5515	6034
Rhinestreet	6031	6338	6034	6370
Sycamore	6338	6509	6370	6665
Middlesex	6509	6637	6665	6934
Burkett	6637	6669	6934	7031
Tully	6669	6712	7031	7199
Marcellus	6712	N/A	7199	N/A

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Hydraulic Fracturing Fluid Product Component Information Disclosure

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Job Start Date:	8/7/2016
Job End Date:	8/19/2016
State:	West Virginia
County:	Doddridge
API Number:	47-017-06509-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Wentz 2H
Latitude:	39.30486940
Longitude:	-80.81487780
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,866
Total Base Water Volume (gal):	12,983,873
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	Supplied by Operator	Base Fluid					
			Water	7732-18-5	100.00000	89.62305	
DWP-975	CWS	Breaker					
				Listed Below			

DWP-641	CWS	Friction Reducer					
				Listed Below			
DAP-103	CWS	Iron Control					
				Listed Below			
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			
DAP-902	CWS	Scale Inhibitor					
				Listed Below			
DWP-111	CWS	Gel Slurry					
				Listed Below			
DWP-844	CWS	Microbiocide					
				Listed Below			
DWP-901	CWS	Breaker					
				Listed Below			
DAP-925	CWS	Acid Corrosion Inhibitor					
				Listed Below			
Acetic Acid	CWS	Acid					

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				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica (Quartz)	14808-60-7	100.00000	10.12541	
			Hydrochloric acid	7647-01-0	37.00000	0.06165	
			Guar gum	9000-30-0	60.00000	0.03688	
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.03688	
			Polymer	26100-47-0	45.00000	0.02934	
			Paraffinic hydrocarbon solvent	64742-47-8	30.00000	0.01956	
			Calcite	471-34-1	1.00000	0.01917	
			Ammonium chloride	12125-02-9	11.00000	0.00717	
			2-Propenoic acid, homopolymer, sodium salt	9003-04-7	40.00000	0.00626	
			Polyethylene glycol mixture	25322-68-3	54.50000	0.00586	
			Goethite	1310-14-1	0.10000	0.00376	
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00307	
			Illite	12173-60-3	1.00000	0.00277	
			Sorbitan monooleate	1338-43-8	4.00000	0.00261	
			2,2-Dibromo-3-Nitrilopropionamide	10222-01-2	20.00000	0.00215	
			Polyethylene glycol monooleate	9004-96-0	3.00000	0.00196	
			Biotite	1302-27-8	0.10000	0.00194	
			Apatite	64476-38-6	0.10000	0.00194	
			1,2-Propanediol	57-55-6	10.00000	0.00157	

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		Sorbitol tetraoleate	61723-83-9	2.00000	0.00130
		Ammonium Persulfate	7727-54-0	100.00000	0.00124
		Ilmenite	98072-94-7	0.10000	0.00103
		Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00092
		Amines, tallow alkyl, ethoxylated	61791-26-2	1.00000	0.00065
		Citric acid	77-92-9	60.00000	0.00057
		Sodium bromide	7647-15-6	4.00000	0.00043
		Alcohols, C12-14, ethoxylated	84133-50-6	0.50000	0.00033
		Dibromoacetonitrile	3252-43-5	3.00000	0.00032
		Acrylamide	79-06-1	0.10000	0.00007
		Methanol	67-56-1	60.00000	0.00004
		Fatty acids, tall-oil	61790-12-3	30.00000	0.00002
		Alcohols, C14-15, ethoxylated	68951-67-7	30.00000	0.00002
		Modified thiourea polymer	68527-49-1	30.00000	0.00002
		Propargyl Alcohol	107-19-7	10.00000	0.00001
		Alkenes, C>10 a-	64743-02-8	5.00000	0.00001
		Poly(tetrafluoroethylene)	9002-84-0	1.00000	0.00001
		Sodium chloride	7647-14-5	1.00000	0.00001
		Hydrated magnesium silicate	14807-96-6	1.00000	0.00001
		Formaldehyde	50-00-0	0.10000	0.00001
		Vinylidene chloride-methyl acrylate copolymer	25038-72-6	30.00000	0.00001

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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)

LATITUDE 39°20'00"

6,589'

1.894' TO BOTTOM HOLE

LATITUDE 39°17'30"

LONGITUDE 80°47'30"

4,557' TO BOTTOM HOLE

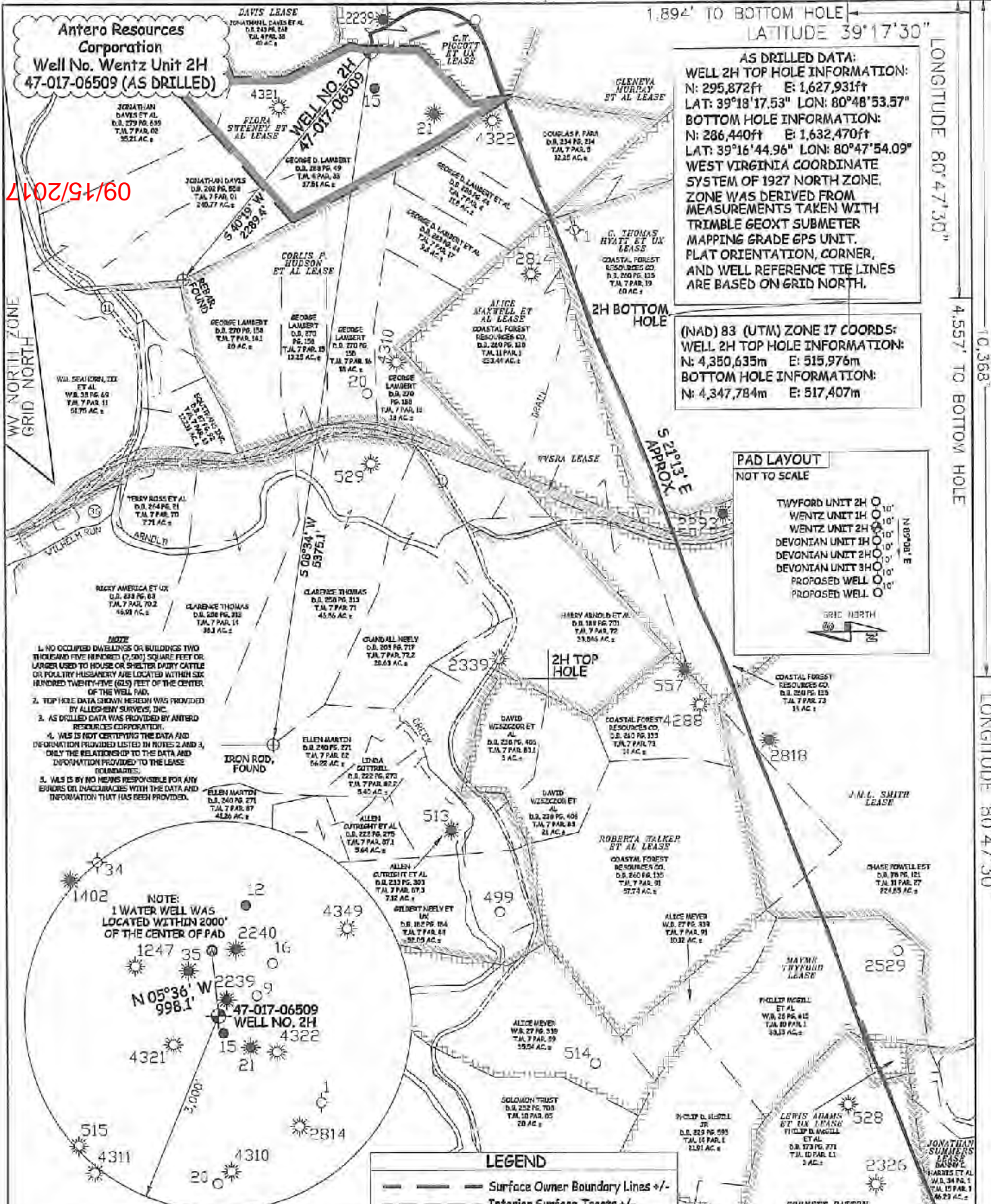
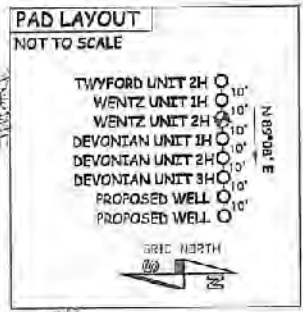
10,368'

LONGITUDE 80°47'30"

Antero Resources Corporation
Well No. Wentz Unit 2H
47-017-06509 (AS DRILLED)

AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 295,872ft E: 1,627,931ft
LAT: 39°18'17.53" LON: 80°48'53.57"
BOTTOM HOLE INFORMATION:
N: 286,440ft E: 1,632,470ft
LAT: 39°16'44.96" LON: 80°47'54.09"
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 2H TOP HOLE INFORMATION:
N: 4,350,635m E: 515,976m
BOTTOM HOLE INFORMATION:
N: 4,347,784m E: 517,407m



- NOTE
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,000) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER PASTY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
 2. TOP HOLE DATA SHOWN HEREIN WAS PROVIDED BY ALICE-BOY SURVEYS, INC.
 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
 4. WAS 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.
 5. WAS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



LEGEND

- Surface Owner Boundary Lines +/-
- - - Interior Surface Tracts +/-
- ⊕ Found monument, as noted
- Proposed Well Path
- ⊗ As Drilled Well Path

JOB # 13-099WA
DRAWING # WENTZ 2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SURMETER MAPPING GRADE GPS



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

WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

DATE 01/06/16
OPERATOR'S WELL # WENTZ UNIT #2H
API WELL # 47 - 017 - 06509
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1,181' ORIGINAL - 1,171' AS-DRILLED WATERSHED HEADWATERS MIDDLE ISLAND CREEK
QUADRANGLE WEST UNION 7.5' DISTRICT CENTRAL COUNTY DODDRIDGE

SURFACE OWNER GEORGE D. LAMBERT ACREAGE 37.51 ACRES +/-
OIL & GAS ROYALTY OWNER FLORA SWEENEY ET AL; G.W. PIGGOTT ET UX; CORLIS HUDSON ET AL; ALICE MAXWELL ET AL; C. THOMAS HYATT ET UX; WYSSA; J.M.L. SMITH; MAYME TWYFORD; LEWIS ADAMS ET UX; CORNETT BATTON ET VIR; JONATHAN SUMMERS 420 ACRES +/-; 60 ACRES +/-; 301.19 ACRES +/-; 404 ACRES +/-; 71 ACRES +/-; 2 ACRES +/-; 53 ACRES +/-; 55 ACRES +/-

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,832' TVD 17,580' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER - CT CORPORATION SYSTEM
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME PERMIT

WELL OPERATOR: ANTERO RESOURCES CORP. ADDRESS: 1615 WYNKOOP STREET DENVER, CO 80202

DESIGNATED AGENT: DIANNA STAMPER - CT CORPORATION SYSTEM ADDRESS: 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

PERMIT NAME: MARCELLUS TARGET FORMATION: (X) AS DRILLED (SPECIFY) PLUG OFF OLD FORMATION: PERFORATE NEW FORMATION: OTHER PHYSICAL CHANGE IN WELL: CLEAN OUT & REPLUG ESTIMATED DEPTH: 6,832' TVD 17,580' MD

COUNTY NAME: QUADRANGLE WEST UNION 7.5 SURFACE OWNER: GEORGE D. LAMBERT ACREAGE: 37.51 ACRES +/- LEASE ACREAGE: 103 ACRES +/- 124.5 ACRES +/- 488.7 ACRES +/- PLACE IN WELL BY: G. THOMAS HAYTT ET UX; W. SWEENEY ET AL; G. W. PIGGOTT ET UX; CORLIS HUDSON ET AL. DRILL DEEPER: CONVERT: DRILL DEEPER: REDRILL: FRACTURE OR STIMULATE: PLUG OFF OLD FORMATION: PERFORATE NEW FORMATION: OTHER PHYSICAL CHANGE IN WELL: CLEAN OUT & REPLUG

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL DEEP SHALLOW X STATE COUNTY PERMIT

LOCATION: ELEVATION 1,171' AS-DRILLED WATERSHED HEADWATERS MIDDLE ISLAND CREEK DISTRICT CENTRAL COUNTY DODDRIDGE

API WELL # 47 - 06509

JOB # 13-099WA DRAWING # WENTZ 2HAD SCALE 1" = 1000' MINIMUM DEGREE OF ACCURACY SUBMETER PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS DEPARTMENT OF ENERGY DIVISION OF OIL AND GAS STATE OF WEST VIRGINIA

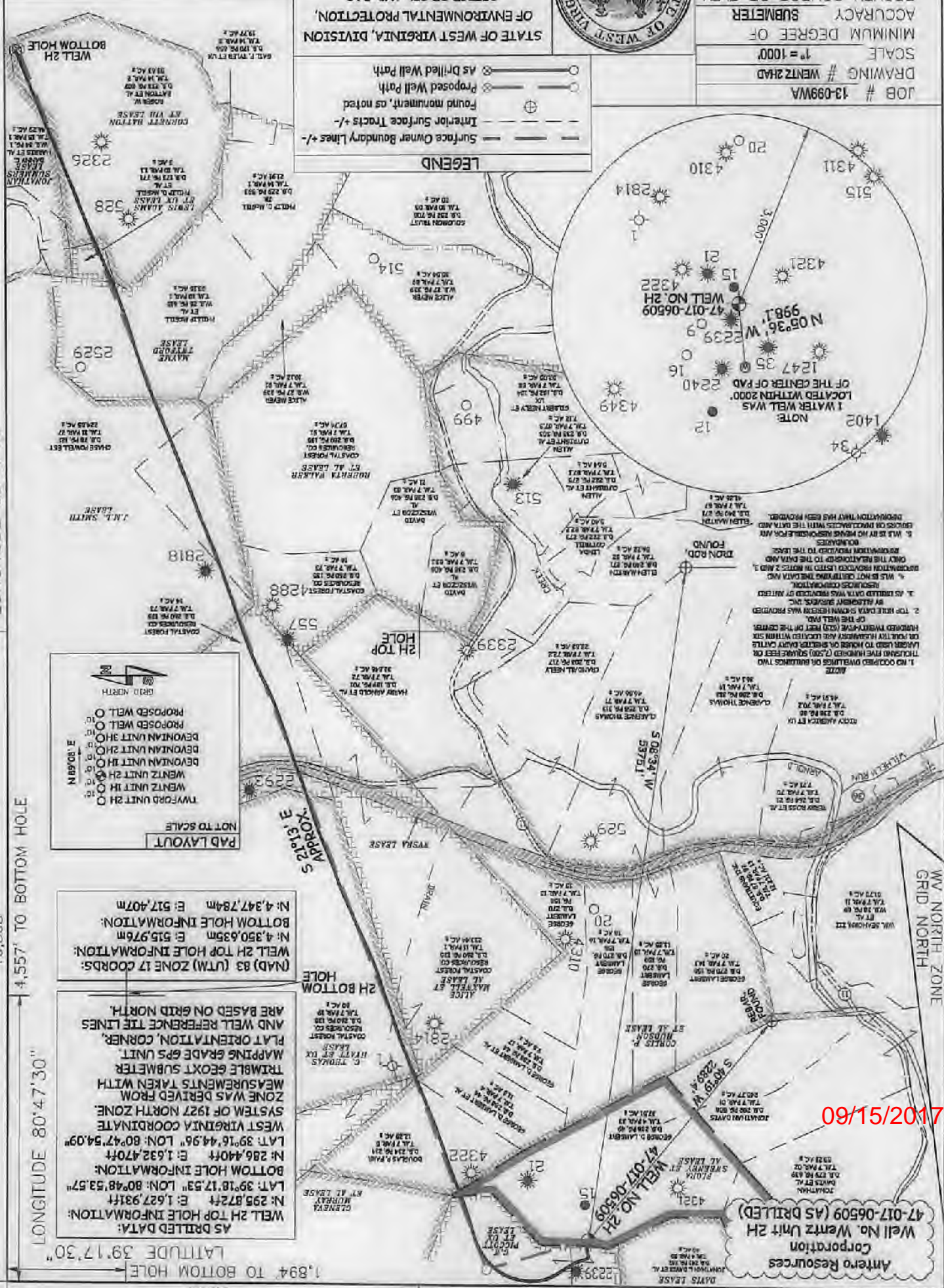
WILLOW LAND SURVEYING PLLC 220 WASONIC AVE. PENNSBORO WEST VIRGINIA 26415

DATE 01/08/16 OPERATOR'S WELL # WENTZ UNIT 2H



LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Found monument, as noted
- Proposed Well Path
- As Drilled Well Path



AS DRILLED DATA: WELL 2H TOP HOLE INFORMATION: N: 295.8724 E: 1.627.9314 LAT: 39°18'17.53" LON: 80°48'53.57" BOTTOM HOLE INFORMATION: N: 286.4404 E: 1.632.4704 LAT: 39°16'44.96" LON: 80°47'54.09" WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE MEASUREMENTS TAKEN WITH TRIMBLE GEOKT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE THE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS: WELL 2H TOP HOLE INFORMATION: N: 4,350.635m E: 515.976m BOTTOM HOLE INFORMATION: N: 4,347.784m E: 517.407m

PAD LAYOUT NOT TO SCALE

WENTZ UNIT 2H
WENTZ UNIT 1H
DEVONIAN UNIT 2H
DEVONIAN UNIT 1H
PROPOSED WELL

GRID NORTH

LONGITUDE 80°47'30"

10,368'

LONGITUDE 80°47'30"

4,557' TO BOTTOM HOLE

LATITUDE 39°17'30"

1.894' TO BOTTOM HOLE

5,689'

09/15/2017

Antero Resources Corporation
Well No. Wentz Unit 2H
47-017-06509 (AS DRILLED)

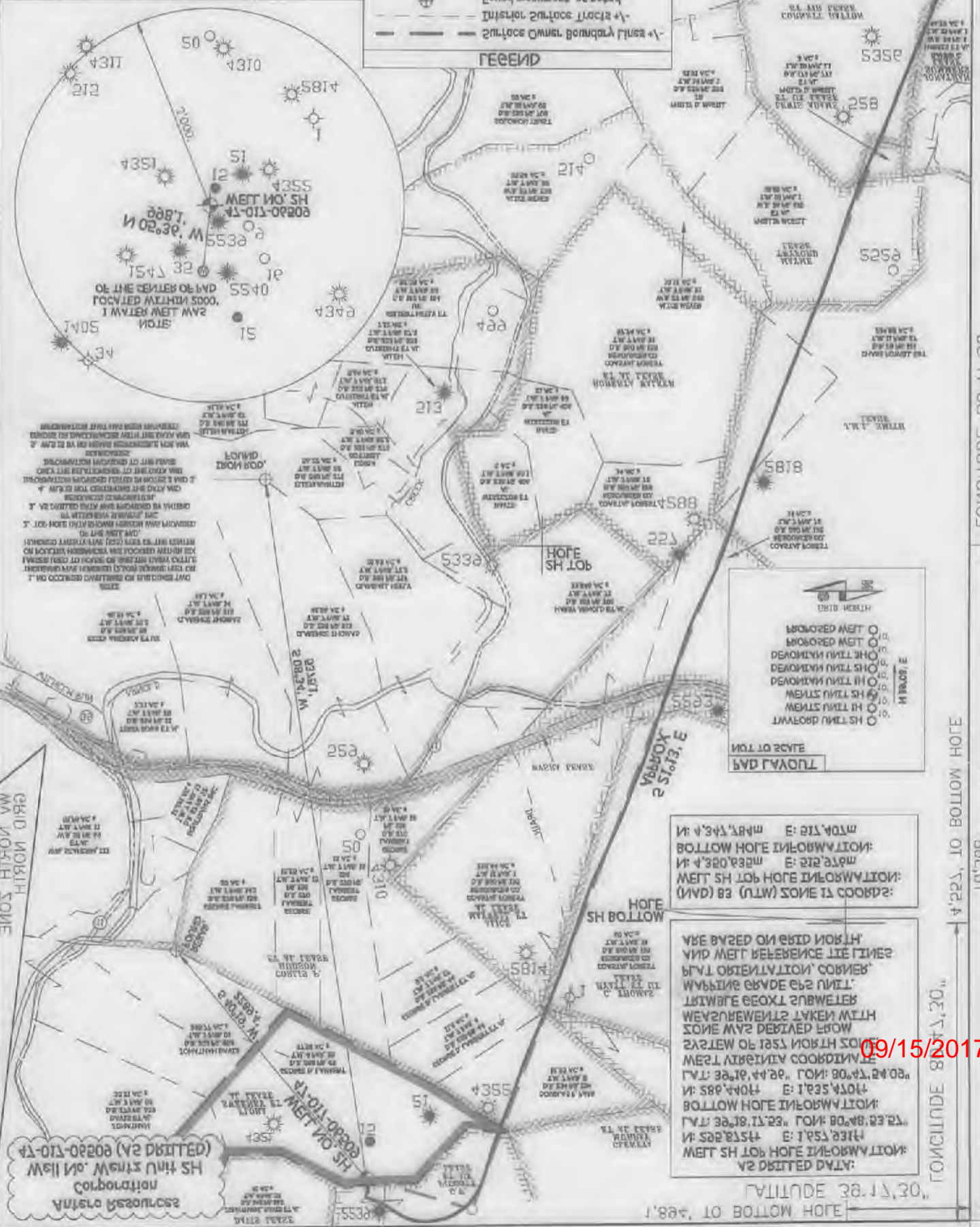
LOVIN MW-8 DENVER CO 80505 CHARLESTON, WY 82513
 ADDRESS 1812 MAIN COOR STREET ADDRESS 8400 D BIG LAGER ROAD
 METT OPERATOR MIKEO BEZOLVES CORP DESIGNATED AGENCY DENVER WATER SUPPLY - CI CORPORATION SYSTEM
 TANK FORMATION MATERIALS MARSELLUS ESTIMATED DEPTH 0' 825.170 FT 280.00 MD
 (SPECIAL) (X) 28 DRILLED BYRD & ABANDONED STAIN OUT & BEYOND
 TYPE OF OLD FORMATION BEFORE NEW FORMATION OTHER PHYSICAL CHANGE IN METT
 PROPOSED WORK: DRIFT CONCRETE DRIFT DEBRIS BEDDING FRASURE OF SUBMOUNTAIN
 LOCATION: ELEVATION 7181 ORIGINAL - 7171 28 DRILLED WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 (IE "CAS") PRODUCTION X STORAGE DEEP SHALLOW X STATE COUNTY PERMIT
 METT TYPE: OIG CAS X POUND INJECTION WASTE DISPOSAL # 101 - 0000
 DIVISION OF OIL AND GAS OBSERVATOR, 2 METT # MENT 1111 15H
 DEPARTMENT OF ENERGY DATE 01/08/88
 STATE OF WEST VIRGINIA



WEST VIRGINIA STATE
 550 WASHINGTON AVE
 HUNTINGTON SURVEYING BUREAU
 OFFICE OF OIL AND GAS
 OF ENVIRONMENTAL PROTECTION
 STATE OF WEST VIRGINIA DIVISION

SUBMETER MAPPING SCALE 825
 PROVEN SOURCE OF ELEVATION ACCURACY SUBMETER
 MINIMUM DEGREE OF SCALE 1" = 4000'
 DRAWING # MENT 1111 15H
 JOB # 12-0888A

- LEGEND
- - 1" vertical scale, 20' horizontal scale
 - ⊕ - 1" vertical scale, 10' horizontal scale
 - ⊖ - 1" vertical scale, 5' horizontal scale
 - ⊗ - 1" vertical scale, 2.5' horizontal scale
 - ⊘ - 1" vertical scale, 1.25' horizontal scale



1" VERTICAL SCALE
 20' HORIZONTAL SCALE
 NORTH ARROW
 PROPOSED METT
 OBSERVED METT
 DECOMMISSIONED METT
 METT WITH IN-HOLE PROBLEMS
 METT WITH IN-HOLE PROBLEMS
 METT WITH IN-HOLE PROBLEMS

COORDINATE INFORMATION:
 WEST SH TOP HOLE INFORMATION:
 E: 1049425.00, N: 721212.00
 BOTTOM HOLE INFORMATION:
 E: 1049425.00, N: 721212.00

AS DRILLED DATA:
 METT SH TOP HOLE INFORMATION:
 E: 1049425.00, N: 721212.00
 BOTTOM HOLE INFORMATION:
 E: 1049425.00, N: 721212.00

LONGITUDE 80.41.20, 10' 388"
 LONGITUDE 80.41.20, 10' 388"
 LONGITUDE 80.41.20, 10' 388"
 LONGITUDE 80.41.20, 10' 388"

09/15/2017

LATITUDE 38.50.00, 10' 288"