

04/05/2019



Antero Resources
1615 Wynkoop Street
Denver, CO 80202
Office 303.357.7310
Fax 303.357.7315

February 28, 2019

West Virginia Department of Environmental Protection
Office of Oil and Gas
Attn: Completions
601 57th Street
Charleston, WV 25304

To Whom It May Concern:

Please find enclosed the Well Operator's Report of Well Work, Form WR-35 (including As-Drilled Survey Plat and Directional Survey), Form WR-34 (Discharge Monitoring Report), & Frac Focus reports for completions on the following wells:

- Dean Unit 1H (API # 47-095-02346)—Weigle East Pad
- Dean Unit 2H (API # 47-095-02347)—Weigle East Pad
- Goodfellow Unit 1H (API # 47-095-02324)—Weigle East Pad
- Goodfellow Unit 2H (API # 47-095-02325)—Weigle East Pad
- Owens Unit 3H (API # 47-095-02326)—Weigle East Pad

If you have any questions, please feel free to contact me at (303) 357-7223.

Sincerely,

A handwritten signature in black ink, appearing to read "MGriffith", written over a white background.

Megan Griffith
Permitting Agent
Antero Resources Corporation

Enclosures

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WR-35
Rev. 8/23/13

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

API 47 - 095 - 02326 County Tyler District Ellsworth
Quad Shirley 7.5' Pad Name Weigle East Pad Field/Pool Name ----
Farm name Edwin C. Weigle Well Number Owens Unit 3H
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 4368525m Easting 512692m
Landing Point of Curve Northing 4368802.16m Easting 513206.79m
Bottom Hole Northing 4371377m Easting 512283m

Elevation (ft) 812' 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 8/11/2016 Date drilling commenced 8/17/2016 Date drilling ceased 10/17/2016
Date completion activities began 7/8/2018 Date completion activities ceased 9/15/2018
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

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Freshwater depth(s) ft 194' Open mine(s) (Y/N) depths No MAR 5 2019
Salt water depth(s) ft 1027' Void(s) encountered (Y/N) depths No
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths No
Is coal being mined in area (Y/N) No

Reviewed by:

Reviewed

JEB
3/14/2019

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API 47-095 - 02326 Farm name Edwin C. Weigle Well number Owens Unit 3H

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"	79'	New	94#, H-40	N/A	Y
Surface	17-1/2"	13-3/8"	460'	New	48#, H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2567'	New	36#, J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	16185'	New	23#, P-110	N/A	Y
Tubing		2-3/8"	6914'		4.7#, P-110		
Packer type and depth set		N/A					

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	102 sx	15.6	1.18	120	0'	8 Hrs.
Surface	Class A	660 sx	15.6	1.18	826	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1040 sx	15.6	1.18	1181	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	727 sx (Lead) 1355 sx (Tail)	13.5 (Lead), 15.2 (Tail)	1.62 (Lead), 1.83 (Tail)	3774	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 16185' MD, 6307' TVD (BHL), 6366' (Deepest Point Drilled) Loggers TD (ft) 16185' MD

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6220'

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

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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 - 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 _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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Rev. 8/23/13

API 47- 095 - 02326 Farm name Edwin C. Weigle Well number Owens Unit 3H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus</u>	<u>6338' (TOP)</u> TVD	<u>6962' (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 7907 mcfpd Oil 172 bpd NGL --- bpd Water 417 bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP
Address 2640 Reach Road City Williamsport State PA Zip 17701

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

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

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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 _____

API 47-095-02326 Farm Name <u>Edwin C. Weigle</u> Well Number <u>Owens Unit 3H</u>					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	7/8/2018	15916	16085	60	Marcellus
2	7/8/2018	15717	15885	60	Marcellus
3	7/8/2018	15519	15686	60	Marcellus
4	7/9/2018	15320	15488	60	Marcellus
5	7/9/2018	15122	15289	60	Marcellus
6	7/10/2018	14923	15091	60	Marcellus
7	7/10/2018	14725	14892	60	Marcellus
8	7/11/2018	14526	14694	60	Marcellus
9	7/11/2018	14328	14495	60	Marcellus
10	7/12/2018	14129	14297	60	Marcellus
11	7/12/2018	13931	14098	60	Marcellus
12	7/13/2018	13732	13900	60	Marcellus
13	7/13/2018	13534	13701	60	Marcellus
14	7/14/2018	13335	13503	60	Marcellus
15	7/14/2018	13137	13304	60	Marcellus
16	7/15/2018	12938	13106	60	Marcellus
17	7/16/2018	12740	12907	60	Marcellus
18	7/17/2018	12541	12709	60	Marcellus
19	7/17/2018	12343	12510	60	Marcellus
20	7/18/2018	12144	12312	60	Marcellus
21	7/18/2018	11946	12113	60	Marcellus
22	7/18/2018	11747	11914	60	Marcellus
23	7/19/2018	11549	11716	60	Marcellus
24	7/20/2018	11350	11517	60	Marcellus
25	7/20/2018	11152	11319	60	Marcellus
26	7/21/2018	10953	11120	60	Marcellus
27	7/21/2018	10755	10922	60	Marcellus
28	7/22/2018	10556	10723	60	Marcellus
29	7/22/2018	10357	10525	60	Marcellus
30	7/23/2018	10159	10326	60	Marcellus
31	7/23/2018	9960	10128	60	Marcellus
32	7/24/2018	9762	9929	60	Marcellus
33	7/24/2018	9563	9731	60	Marcellus
34	7/25/2018	9365	9532	60	Marcellus
35	7/25/2018	9166	9334	60	Marcellus
36	7/25/2018	8968	9135	60	Marcellus
37	7/26/2018	8769	8937	60	Marcellus
38	7/26/2018	8571	8738	60	Marcellus
39	7/27/2018	8372	8540	60	Marcellus
40	7/27/2018	8174	8341	60	Marcellus
41	7/28/2018	7975	8143	60	Marcellus
42	7/28/2018	7777	7944	60	Marcellus
43	7/29/2018	7578	7746	60	Marcellus
44	7/29/2018	7380	7547	60	Marcellus
45	7/29/2018	7181	7349	60	Marcellus
46	7/29/2018	6983	7150	60	Marcellus

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API 47-095-02326 Farm Name Edwin C. Wegile Well Number Owens Unit 3H

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	7/8/2018	76	7736	5807	4594	18137	8306	N/A
2	7/8/2018	73	7299	5796		13095	8721	N/A
3	7/8/2018	73.6	7281	5793	4955	18029	8083	N/A
4	7/9/2018	76.7	7355	5900	4572	17827	8280	N/A
5	7/9/2018	75	7398	5658	3750	16806	8017	N/A
6	7/10/2018	72.7	7264	5882	4543	17689	8478	N/A
7	7/10/2018	72.1	7034	6272	4598	17904	10508	N/A
8	7/11/2018	78	7295	6168	4096	17559	8017	N/A
9	7/11/2018	72.1	7443	5966	4333	17742	9022	N/A
10	7/12/2018	76.5	7060	5685	4158	16903	8091	N/A
11	7/12/2018	78.5	7068	6049	4075	17192	8028	N/A
12	7/13/2018	72.8	7642	5575	5020	18237	13516	N/A
13	7/13/2018	78	7089	6619	4031	17739	8127	N/A
14	7/14/2018	75.9	7104	5592	3957	16653	9081	N/A
15	7/14/2018	71.4	7130	6701	5569	19400	9059	N/A
16	7/15/2018	74.8	7318	6411	4050	17779	8082	N/A
17	7/16/2018	68.3	6966	6020	4331	17317	8055	N/A
18	7/17/2018	69	7372	5905	5038	18315	9483	N/A
19	7/17/2018	73	7137	6005	4582	17724	7999	N/A
20	7/18/2018	74.4	6751	6097	4041	16889	8181	N/A
21	7/18/2018	74	6777	6365	3616	16758	7999	N/A
22	7/18/2018	75.4	7039	6337	3739	17115	8972	N/A
23	7/19/2018	77.1	7116	6513	3536	17165	8262	N/A
24	7/20/2018	75.3	7300	6009	6865	20174	7105	N/A
25	7/20/2018	73.5	6666.3	5926	3625	16217.3	8193	N/A
26	7/21/2018	74.2	6606	5743	3686	16035	8302	N/A
27	7/21/2018	74.5	6561.1	5956	3714	16231.1	8275	N/A
28	7/22/2018	75.5	6691	6461	3587	16739	8022	N/A
29	7/22/2018	73.5	6644.1	5219	4575	16438.1	7975	N/A
30	7/23/2018	71.7	6670	6057	3776	16503	8085	N/A
31	7/23/2018	75.1	6598.3	5862	4092	16552.3	8223	N/A
32	7/24/2018	72.3	6688	5379	4504	16571	9285	N/A
33	7/24/2018	73.4	6456.3	5937	3765	16158.3	8133	N/A
34	7/25/2018	73.4	6579.3	6376	3860	16815.3	7734	N/A
35	7/25/2018	74.4	6573	5565	3994	16132	7981	N/A
36	7/25/2018	77.4	6744.1	5477	3782	16003.1	8130	N/A
37	7/26/2018	72.8	6360	5988	3820	16168	7903	N/A
38	7/26/2018	73.3	6354.8	6040	3779	16173.8	7956	N/A
39	7/27/2018	72.2	6654	5332	4142	16128	8140	N/A
40	7/27/2018	76.8	6685.3	6453	4134	17272.3	7804	N/A
41	7/28/2018	73.5	6771	6053	6586	19410	7580	N/A
42	7/28/2018	73.2	6398.2	5224	4500	16122.2	8010	N/A
43	7/29/2018	74.7	6529	5892	4113	16534	7980	N/A
44	7/29/2018	74.5	6237	6207	4536	16980	7894	N/A
45	7/29/2018	76.3	6395	6060	4295	16750	7607	N/A
46	7/29/2018	74.8	6494.2	6108	4410	17012.2	8272	N/A
	AVG=	74.2	6,898	5,966	4,296	785,094	384,956	N/A

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API 47-095-02326 Farm Name Edwin C. Weigle Well Number Owens Unit 3H				
EXHIBIT 3				
LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Siltstone	0	221	0	221
Siltstone & Coal	221	269	221	269
Siltstone	269	405	269	405
Sandstone	405	536	405	536
Shale w/trace Coal	536	561	536	561
Shale w/trace Coal	561	761	561	761
Siltstone	761	801	761	801
Shale w/trace Coal	801	941	801	941
Siltstone	941	1,133	941	1,133
Sandstone	1,133	1,195	1,133	1,195
Siltstone	1,195	1,231	1,195	1,231
Sandstone	1,231	1,311	1,231	1,311
Siltstone	1,311	1,721	1,311	1,723
Big Lime	1,666	1,812	1,687	1,842
Big Injun	1,812	2,284	1,842	2,342
Gantz Sand	2,284	2,466	2,342	2,530
Fifty Foot Sandstone	2,466	2,594	2,530	2,662
Gordon	2,594	2,921	2,662	3,007
Fifth Sandstone	2,921	2,988	3,007	3,078
Bayard	2,988	3,327	3,078	3,448
Warren	3,327	3,724	3,448	3,884
Speechley	3,724	4,408	3,884	4,636
Balltown	4,000	4,831	4,187	5,096
Bradford	4,408	4,831	4,636	5,096
Benson	4,831	5,052	5,096	5,338
Alexander	5,052	5,222	5,338	5,524
Elk	5,222	5,646	5,524	5,986
Rhinestreet	5,627	5,983	5,967	6,359
Sycamore	5,983	6,159	6,359	6,593
Middlesex	6,159	6,251	6,593	6,762
Burkett	6,251	6,279	6,762	6,831
Tully	6,279	6,319	6,831	6,943
Marcellus	6,319	NA	6,943	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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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/8/2018
Job End Date:	7/29/2018
State:	West Virginia
County:	Tyler
API Number:	47-095-02326-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Owens 3H
Latitude:	39.46613100
Longitude:	-80.85264700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,609
Total Base Water Volume (gal):	16,782,394
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	70.00000	88.04007	
Calbreak 5501	CWS	Breaker					
				Listed Below			

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DWP-641	CWS	Friction Reducer					
				Listed Below			
SANIFRAC 8844	CWS	Biocide					
				Listed Below			
Hydrochloric Acid	CWS	Clean Perforations					
				Listed Below			
DAP-103	CWS	Iron Control					
				Listed Below			
DWP-111	CWS	Gel Slurry					
				Listed Below			
Sand (Proppant)	CWS	Propping Agent					
				Listed Below			
CI-9100G	CWS	Corrosion Inhibitor					
				Listed Below			
DAP-902	CWS	Scale Inhibitor					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					

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				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	11.56710	
			Calcite	471-34-1	1.00000	0.07735	
			Hydrochloric acid	7647-01-0	37.00000	0.05632	
			Guar gum	9000-30-0	60.00000	0.04555	
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.04555	
			Illite	12173-60-3	1.00000	0.03829	
			Polymer	26100-47-0	45.00000	0.02539	
			Distillates (petroleum), hydrotreated light	64742-47-8	30.00000	0.01693	
			Ammonium Persulfate	64742-47-8	100.00000	0.01191	
			Apatite	64476-38-6	0.10000	0.01156	
			Biotite	1302-27-8	0.10000	0.01156	
			Goethite	1310-14-1	0.10000	0.01156	
			Polyethylene glycol mixture	25322-68-3	54.50000	0.00627	
			Ammonium chloride	12125-02-9	11.00000	0.00621	
			2-Propenoic acid, homopolymer, sodium salt	9003-04-7	40.00000	0.00605	
			Ilmenite	98072-94-7	0.10000	0.00383	
			Quaternary ammonium compounds, bis (hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00380	
			Vinylidene chloride-methyl acrylate copolymer	69418-26-4	20.00000	0.00238	
			2,2-Dibromo-3-Nitrilopropionamide	10222-01-2	20.00000	0.00230	
			Sorbitan monooleate	1338-43-8	4.00000	0.00226	
			Polyethylene glycol monooleate	9004-96-0	3.00000	0.00169	

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			1,2-Propanediol	57-55-6	10.00000	0.00151	
			Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00114	
			Sorbitol tetraoleate	61723-83-9	2.00000	0.00113	
			Amines, tallow alkyl, ethoxylated	61791-26-2	1.00000	0.00056	
			Citric acid	77-92-9	60.00000	0.00051	
			Sodium bromide	7647-15-6	4.00000	0.00046	
			Dibromoacetonitrile	3252-43-5	3.00000	0.00035	
			Alkyloxypolyethyleneoxy ethanol	84133-50-6	0.50000	0.00028	
			Acrylamide	79-06-1	0.10000	0.00006	
			Ethylene glycol	107-21-1	40.00000	0.00003	
			Diethylene glycol (mono) methyl ether	34590-94-8	20.00000	0.00002	
			Formic Acid	64-18-6	10.00000	0.00001	
			Tar bases, quinolone derivs, benzyl chloride- quatenized	72480-70-7	10.00000	0.00001	
			Tar bases, quinolone derivs	68513-87-1	1.00000	0.00001	
			Cinnamaldehyde	104-55-2	10.00000	0.00001	
			Ethoxylated alcohols	Proprietary	10.00000	0.00001	Proprietary CAS
			Diethylene glycol	111-46-6	1.00000	0.00001	
			Isopropanol	67-63-0	5.00000	0.00001	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

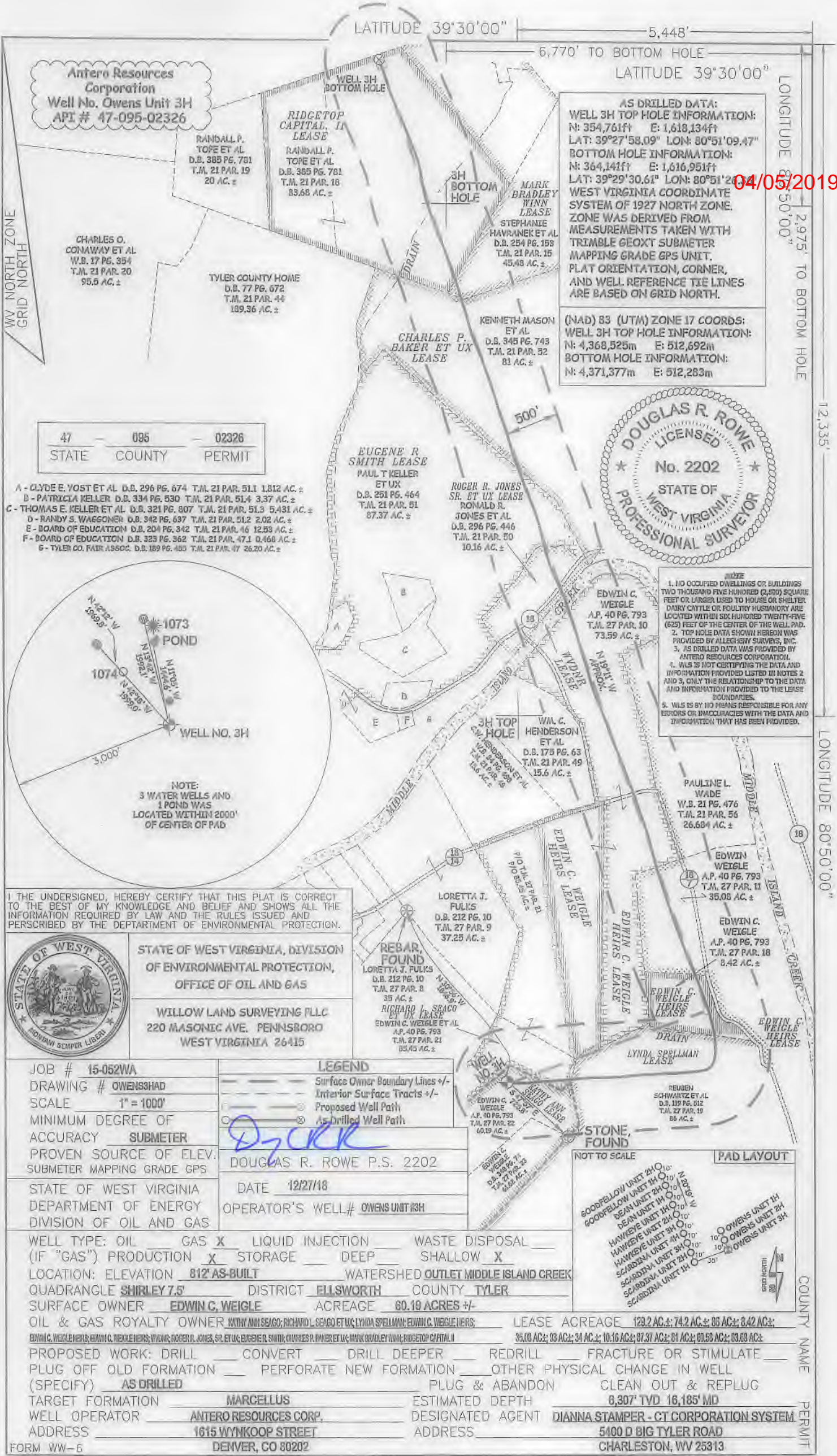
** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** 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)

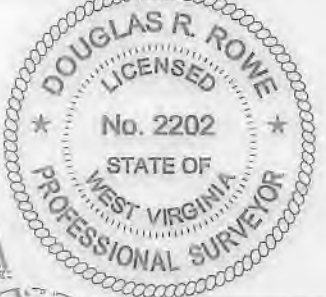
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Antero Resources Corporation
Well No. Owens Unit 3H
API # 47-095-02326

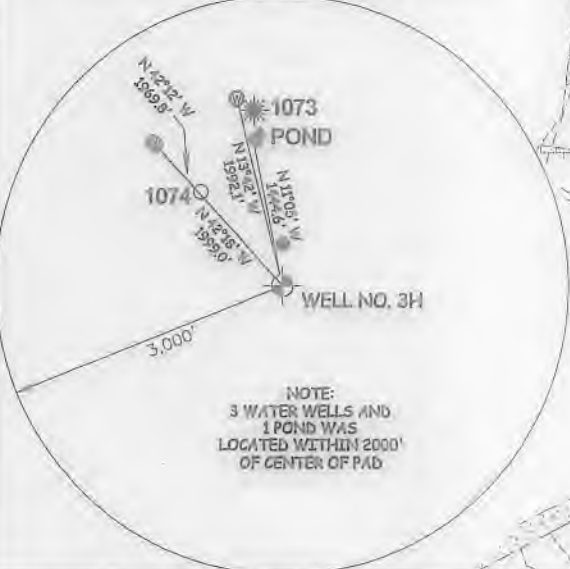
AS DRILLED DATA:
WELL 3H TOP HOLE INFORMATION:
N: 354,761ft E: 1,618,134ft
LAT: 39°27'58.09" LON: 80°51'09.47"
BOTTOM HOLE INFORMATION:
N: 364,141ft E: 1,616,951ft
LAT: 39°29'30.61" LON: 80°51'20.00"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE 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 3H TOP HOLE INFORMATION:
N: 4,368,525m E: 512,692m
BOTTOM HOLE INFORMATION:
N: 4,371,377m E: 512,283m



47	095	02326
STATE	COUNTY	PERMIT

- A - CLYDE E. YOST ET AL D.B. 296 PG. 674 T.M. 21 PAR. 51.1 1.812 AC. ±
- B - PATRICIA KELLER D.B. 334 PG. 530 T.M. 21 PAR. 51.4 3.37 AC. ±
- C - THOMAS E. KELLER ET AL D.B. 321 PG. 807 T.M. 21 PAR. 51.3 5.431 AC. ±
- D - RANDY S. WAGGONER D.B. 342 PG. 637 T.M. 21 PAR. 51.2 2.02 AC. ±
- E - BOARD OF EDUCATION D.B. 204 PG. 342 T.M. 21 PAR. 46 12.53 AC. ±
- F - BOARD OF EDUCATION D.B. 323 PG. 362 T.M. 21 PAR. 47.1 0.468 AC. ±
- G - TYLER CO. FAIR ASSOC. D.B. 189 PG. 485 T.M. 21 PAR. 47 26.20 AC. ±



NOTE
1. 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 500' HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
4. 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.
5. 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

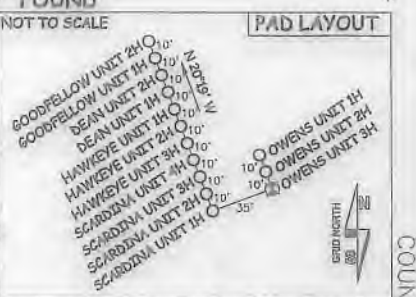
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

REBAR FOUND
LORETTA J. FULKS
D.B. 212 PG. 10 T.M. 27 PAR. 8 35 AC. ±
RICHARD V. SEAGO ET UX LEASE
EDWIN C. WEIGLE ET AL
A.P. 40 PG. 793 T.M. 27 PAR. 21 85.03 AC. ±

JOB # 15-052WA
DRAWING # OWENS3HAD
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

LEGEND
--- Surface Owner Boundary Lines +/-
--- Interior Surface Tracts +/-
--- Proposed Well Path
--- As Drilled Well Path
D. Rowe
DOUGLAS R. ROWE P.S. 2202
DATE 12/27/18
OPERATOR'S WELL# OWENS UNIT #3H

WELL TYPE: OIL ___ GAS **X** LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION **X** STORAGE ___ DEEP ___ SHALLOW **X**
LOCATION: ELEVATION 812' AS-BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
QUADRANGLE SHIRLEY 7.5' DISTRICT FILLSWORTH COUNTY TYLER
SURFACE OWNER EDWIN C. WEIGLE ACREAGE 60.10 ACRES +/-
OIL & GAS ROYALTY OWNER KATHY ANN SEAGO; RICHARD V. SEAGO ET UX; LYNDIA SPELLMAN; EDWIN C. WEIGLE HEIRS;
EDWIN C. WEIGLE HEIRS; EDWIN C. WEIGLE HEIRS; LYDIA SPELLMAN; ROGER R. JONES, SR. ET UX; EUGENE R. SMITH; CHARLES P. BAKER ET UX; MARK BRADLEY WINN; RIDGETOP CAPITAL, II
35.08 AC. ±; 03 AC. ±; 34 AC. ±; 10.16 AC. ±; 87.37 AC. ±; 81 AC. ±; 81.53 AC. ±; 83.89 AC. ±
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 **6,307' TVD 16,185' MD**
WELL OPERATOR **ANTERO RESOURCES CORP.** DESIGNATED AGENT **DIANNA STAMPER - CT CORPORATION SYSTEM**
ADDRESS **1615 WYNKOOP STREET** ADDRESS **5400 D BIG TYLER ROAD**
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313



04/05/2019

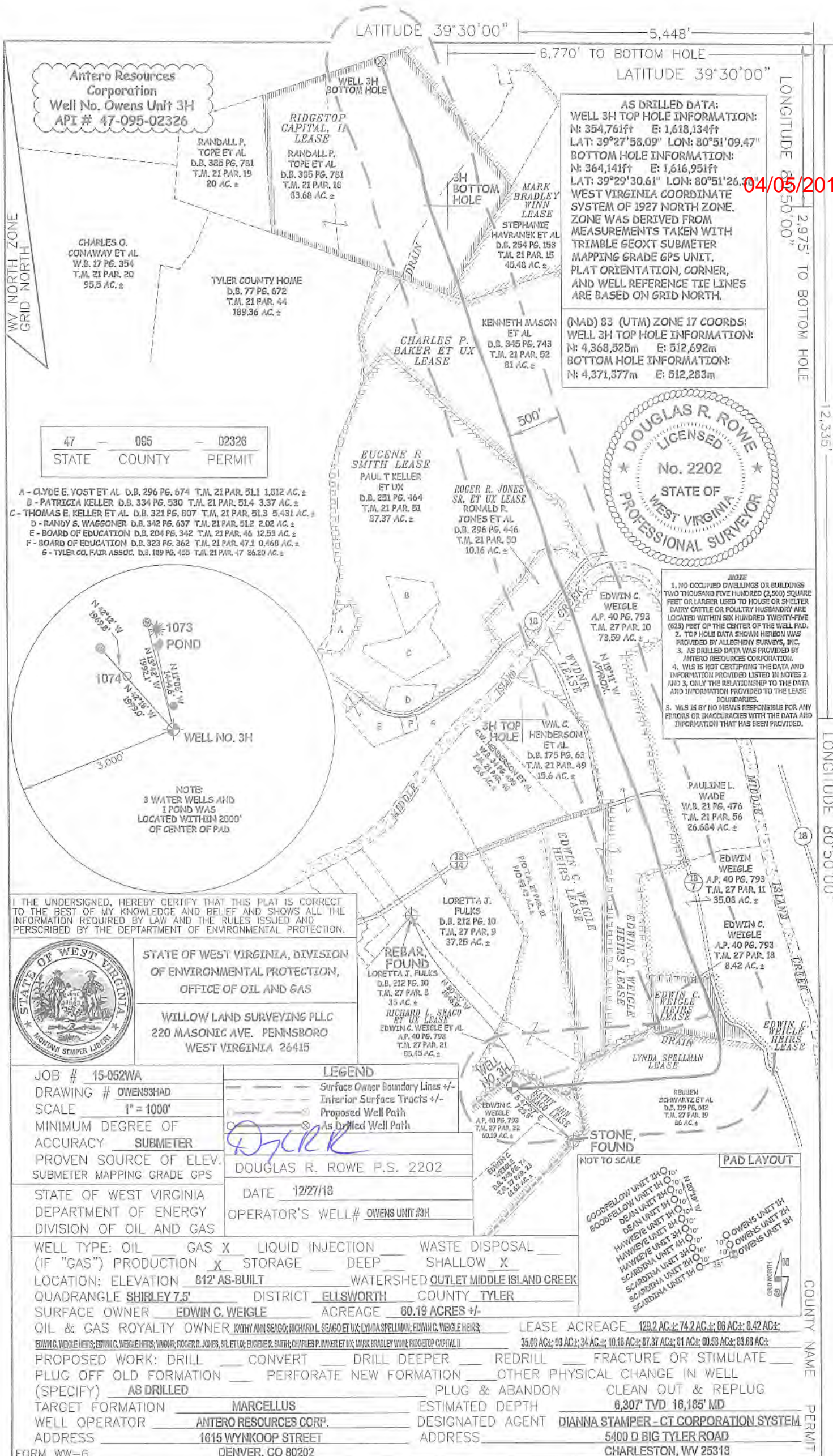
LONGITUDE 80°50'00"

2,975' TO BOTTOM HOLE

12,335'

LONGITUDE 80°50'00"

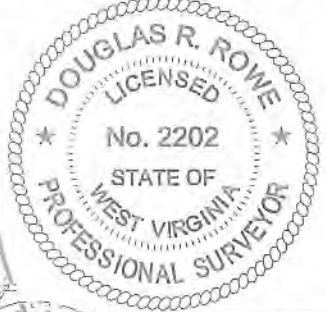
COUNTY NAME PERMIT



04/05/2019

AS DRILLED DATA:
WELL 3H TOP HOLE INFORMATION:
 N: 354,761ft E: 1,618,134ft
 LAT: 39°27'58.09" LON: 80°51'09.47"
BOTTOM HOLE INFORMATION:
 N: 364,141ft E: 1,616,951ft
 LAT: 39°29'30.61" LON: 80°51'26.39"

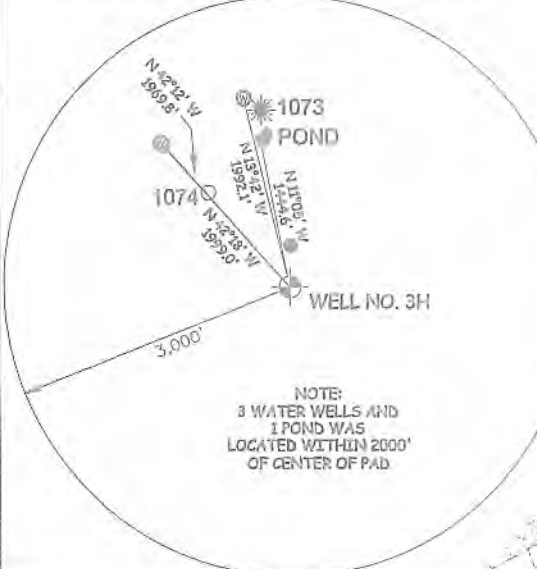
(NAD 83 (UTM) ZONE 17 COORDS):
WELL 3H TOP HOLE INFORMATION:
 N: 4,368,525m E: 512,692m
BOTTOM HOLE INFORMATION:
 N: 4,371,377m E: 512,283m



- NOTE**
1. 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.
 2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
 3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
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47 - 095 - 02326
 STATE COUNTY PERMIT

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- B - PATRICIA KELLER D.B. 334 PG. 530 T.M. 21 PAR. 51.4 3.37 AC. ±
- C - THOMAS E. KELLER ET AL. D.B. 321 PG. 807 T.M. 21 PAR. 51.3 5.431 AC. ±
- D - RANDY S. WAGGONER D.B. 342 PG. 637 T.M. 21 PAR. 51.2 2.02 AC. ±
- E - BOARD OF EDUCATION D.B. 204 PG. 342 T.M. 21 PAR. 46 12.53 AC. ±
- F - BOARD OF EDUCATION D.B. 323 PG. 362 T.M. 21 PAR. 47.1 0.168 AC. ±
- G - TYLER CO. FAIR ASSOC. D.B. 189 PG. 425 T.M. 21 PAR. 47 26.20 AC. ±



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 # 15-052WA
 DRAWING # OWENS3HAD
 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

LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Proposed Well Path
- As Drilled Well Path

DOUGLAS R. ROWE P.S. 2202
 DATE 12/27/18
 OPERATOR'S WELL # OWENS UNIT #3H

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 812' AS-BUILT WATERSHED OUTLET MIDDLE ISLAND CREEK
 QUADRANGLE SHIRLEY 7.5 DISTRICT ELLSWORTH COUNTY TYLER
 SURFACE OWNER EDWIN C. WEIGLE ACREAGE 80.19 ACRES +/-
 OIL & GAS ROYALTY OWNER KATHY ANN SEAGO, RICHARD L. SEAGO ET UX; LYNDIA SPELLMAN, EDWIN C. WEIGLE HEIRS; LEASE ACREAGE 129.2 AC. ±; 74.2 AC. ±; 86 AC. ±; 8.42 AC. ±;
 EDWIN C. WEIGLE HEIRS; EDWIN C. WEIGLE HEIRS; JONAS; ROGER R. JONES, SR. ET UX; EUGENE R. SMITH; CHARLES P. BAKER ET UX; MARK BRADLEY WINN; RIDGETOP CAPITAL II 35.05 AC. ±; 93 AC. ±; 34 AC. ±; 10.16 AC. ±; 87.37 AC. ±; 81 AC. ±; 60.53 AC. ±; 83.68 AC. ±;
 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
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