

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



API 47 - 085 - 10221 County Ritchie District Clay
Quad Pennsboro 7.5' Pad Name Charlene Pad Field/Pool Name ----
Farm name Linda C. Dewberry Trust Well Number Eppard Unit 1H
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 4350033m Easting 503143m
Landing Point of Curve Northing 4349843.316m Easting 502925.036m
Bottom Hole Northing 4347941m Easting 503679m

Elevation (ft) 1118' 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

RECEIVED
Office of Oil and Gas
SEP 12 2016

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

West Virginia
Department of Environmental Protection

Date permit issued 7/17/2015 Date drilling commenced 7/24/2015 Date drilling ceased 11/16/2015
Date completion activities began 5/23/2016 Date completion activities ceased 7/4/2016
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 77', 260' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 997', 3233' Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

APPROVED

NAME: Michael Hoff

DATE: 12-21-2016

Reviewed by: _____

API 47-085 10221 Farm name Linda C. Dewberry Trust Well number Eppard Unit 1H

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"	20"	40'	New	94#/H-40	N/A	Y
Surface	17-1/2"	13-3/8"	330'	New	48#/H-40	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2560'	New	36#/J-55	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4"/8-1/2"	5-1/2"	13,537'	New	20#/P-110	N/A	Y
Tubing		2-3/8"	6567'		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 ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	90 sx	15.6	1.18	38 Cu. Ft.	0'	8 Hrs.
Surface	Class A	441 sx	15.6	1.18	229 Cu. Ft.	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1006 sx	15.6	1.11	802 Cu. Ft.	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1451 sx (Lead), 906 sx (Tail)	14.2 (Lead), 14.8 (Tail)	1.24 (Lead), 1.81 (Tail)	2629 Cu. Ft.	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 13,537' MD, 6418' TVD (BHL), 6419' TVD (Deepest Point Drilled) Loggers TD (ft) 13,491' MD
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

SEP 12 2016

Kick off depth (ft) 6100'

** This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Hendershot Unit 1H API# 47-085-10060). Please reference the wireline logs submitted with Form WR-35 for the Hendershot 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

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

API 47- 085 - 10221 Farm name Linda C. Dewberry Trust Well number Eppard Unit 1H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
			SEE ATTACHED EXHIBIT 1		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations 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)
			SEE ATTACHED EXHIBIT 2					

Please insert additional pages as applicable.

API 47-085-10221 Farm Name Linda C. Dewberry Trust Well Number Eppard Unit 1H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	23-May-16	13277	13446	60	Marcellus
2	24-May-16	13076	13245	60	Marcellus
3	24-May-16	12876	13045	60	Marcellus
4	24-May-16	12675	12844	60	Marcellus
5	24-May-16	12475	12644	60	Marcellus
6	25-May-16	12275	12444	60	Marcellus
7	25-May-16	12074	12243	60	Marcellus
8	25-May-16	11874	12043	60	Marcellus
9	25-May-16	11674	11843	60	Marcellus
10	26-May-16	11473	11642	60	Marcellus
11	26-May-16	11273	11442	60	Marcellus
12	26-May-16	11072	11241	60	Marcellus
13	26-May-16	10872	11041	60	Marcellus
14	27-May-16	10672	10841	60	Marcellus
15	27-May-16	10471	10640	60	Marcellus
16	27-May-16	10271	10440	60	Marcellus
17	27-May-16	10070	10239	60	Marcellus
18	27-May-16	9870	10039	60	Marcellus
19	28-May-16	9670	9839	60	Marcellus
20	28-May-16	9469	9638	60	Marcellus
21	28-May-16	9269	9438	60	Marcellus
22	28-May-16	9069	9238	60	Marcellus
23	29-May-16	8868	9037	60	Marcellus
24	29-May-16	8668	8837	60	Marcellus
25	29-May-16	8467	8636	60	Marcellus
26	29-May-16	8267	8436	60	Marcellus
27	30-May-16	8067	8236	60	Marcellus
28	30-May-16	7866	8035	60	Marcellus
29	30-May-16	7666	7835	60	Marcellus
30	30-May-16	7466	7635	60	Marcellus
31	30-May-16	7265	7434	60	Marcellus
32	31-May-16	7065	7234	60	Marcellus
33	31-May-16	6864	7033	60	Marcellus
34	31-May-16	6664	6833	60	Marcellus

RECEIVED
 Oklahoma Department of
 Oil and Gas
 SEP 12 2016
 Department of
 Oil and Gas
 Protection

API 47-085-10221 Farm Name Linda C. Dewberry Trust Well Number Eppard Unit 1H

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	23-May-16	72.7	6954	5613	4588	305250	7924	N/A
2	24-May-16	73.3	6779	5946	3791	306000	7906	N/A
3	24-May-16	73.1	6733	5934	5299	305930	8223	N/A
4	24-May-16	71.8	6598	6110	4290	305520	7888	N/A
5	24-May-16	71.8	6626	5982	4445	305450	7886	N/A
6	25-May-16	73.6	6571	5785	3420	305500	7860	N/A
7	25-May-16	75.4	6693	6061	4135	306870	7869	N/A
8	25-May-16	74.2	6719	5976	4084	308250	7892	N/A
9	25-May-16	74.7	6689	5703	4974	305760	7818	N/A
10	26-May-16	74.5	6675	5502	4811	306050	7803	N/A
11	26-May-16	73.9	6699	5326	4496	305680	7815	N/A
12	26-May-16	74	6728	5717	3872	307980	7835	N/A
13	26-May-16	74.2	6574	5266	4226	305850	7805	N/A
14	27-May-16	74.7	6701	5472	4690	305360	7764	N/A
15	27-May-16	72.8	6536	5402	4990	306360	7764	N/A
16	27-May-16	72.9	6580	5160	4759	263369	8230	N/A
17	27-May-16	74.3	6516	5268	5159	306180	8908	N/A
18	27-May-16	74.8	6538	5025	4914	305200	7730	N/A
19	28-May-16	74.3	6628	5266	4665	306340	7701	N/A
20	28-May-16	73.6	6493	5705	2905	307050	7810	N/A
21	28-May-16	73.6	6715	5198	3456	303730	8794	N/A
22	28-May-16	71.9	6723	5242	4546	269450	8282	N/A
23	29-May-16	75.1	6792	5245	4212	306290	7684	N/A
24	29-May-16	74.7	6311	5677	3895	305270	8287	N/A
25	29-May-16	74.2	6400	5580	5054	307240	7620	N/A
26	29-May-16	75.9	6280	5435	5005	305500	7593	N/A
27	30-May-16	75.6	6235	5510	4815	305375	7584	N/A
28	30-May-16	71	6136	5488	3192	305470	7562	N/A
29	30-May-16	75	6240	5826	3223	305910	7581	N/A
30	30-May-16	75.5	6241	6060	3574	305760	7545	N/A
31	30-May-16	76	6383	5973	3068	305600	7531	N/A
32	31-May-16	76	6346	6047	3656	305200	7504	N/A
33	31-May-16	73	6597	5646	3420	305410	8006	N/A
34	31-May-16	74	6082	6030	3472	305750	7505	N/A
	AVG=	74.0	6,544	5,623	4,209	10,321,904	267,509	TOTAL

E: [unclear] [unclear]

EXHIBIT 3

LITHOLOGY/ FORMATION	TOP DEPTH (TVD)	BOTTOM DEPTH (TVD)	TOP DEPTH (MD)	BOTTOM DEPTH (MD)
	From Surface	From Surface	From Surface	From Surface
Fresh Water	77	N/A	77	N/A
Fresh Water	260	N/A	260	N/A
Siltstone/Sandstone	0	97	0	97
Shale	97	257	97	257
Siltstone	257	297	257	297
Shale	297	337	297	337
Trace Coal	337	477	337	477
Sandstone	477	677	477	677
Siltstone	677	727	677	727
Siltstone/Sandstone	727	747	727	747
Sandstone	747	917	747	917
Shale/Siltstone	917	1,017	917	1,017
Shale	1,017	1,057	1,017	1,057
Sandstone	1,057	1,217	1,057	1,217
Shale/Trace Coal	1,217	1,257	1,217	1,257
Sandstone	1,257	1,457	1,257	1,457
Sandstone	1,457	1,717	1,457	1,717
Shale/Siltstone	1,717	1,757	1,717	1,757
Sandstone	1,757	1,994	1,757	1,997
Big Lime	1,994	2,857	1,997	2,860
Fifty Foot Sandstone	2,857	2,950	2,860	2,953
Gordon	2,950	3,314	2,953	3,317
Fifth Sandstone	3,314	3,380	3,317	3,383
Bayard	3,380	3,931	3,383	3,934
Speechley	3,931	4,150	3,934	4,153
Baltown	4,150	4,567	4,153	4,572
Bradford	4,567	4,975	4,572	4,988
Benson	4,975	5,248	4,988	5,278
Alexander	5,248	6,133	5,278	6,262
Sycamore	6,133	6,225	6,262	6,378
Middlesex	6,225	6,327	6,378	6,534
Burkett	6,327	6,352	6,534	6,592
Tully	6,352	6,369	6,592	6,644
Marcellus	6,369	NA	6,644	NA

RECEIVED
Office of Oil and Gas

SEP 19 2016

Division of Oil and Gas
Environmental Protection

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/23/2016
Job End Date:	5/31/2016
State:	West Virginia
County:	Ritchie
API Number:	47-085-10221-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Eppard Unit 1H
Latitude:	39.29967420
Longitude:	-80.96355040
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,420
Total Base Water Volume (gal):	11,605,478
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	Antero Resources	Base Fluid					
			Water	7732-18-5	100.00000	90.02524	
Sand	U.S. Well Services, LLC	Proppant					
			Crystalline Silica, quartz	14808-60-7	100.00000	9.60053	
HCL Acid (12.6%-18.0%)	U.S. Well Services, LLC	Bulk Acid					
			Water	7732-18-5	87.50000	0.13900	
			Hydrogen Chloride	7647-01-0	18.00000	0.03320	
LGC-15	U.S. Well Services	Gelling Agents					
			Guar Gum	9000-30-0	50.00000	0.05402	
			Petroleum Distillates	64742-47-8	60.00000	0.05116	
			Suspending agent (solid)	14808-60-7	3.00000	0.00826	
			Surfactant	68439-51-0	3.00000	0.00324	
WFRA-405	U.S. Well Services	Friction Reducer					
			Water	7732-18-5	60.00000	0.03137	
			2-Propenoic acid, polymer with propenamide	29003-06-9	30.00000	0.01568	
			Hydrated light distillate (petroleum)	64742-47-8	30.00000	0.01263	

SI-1100s	J.S. Well Services	Scale Inhibitor	Ethoxylated alcohol blend	58002-97-1	4.00000	0.00209
			Water	7732-18-5	80.00000	0.01023
			Copolymer of Maleic and Acrylic acid	52255-49-9	10.00000	0.00151
			Potassium salt of diethylene triamine penta (methylene phosphonic acid)	15827-60-8	7.50000	0.00129
			Hexamethylene tramine penta (methylene phosphonic acid)	34690-00-1	5.00000	0.00083
			Phosphino carboxylic acid polymer	71050-62-9	5.00000	0.00083
			Hexamethylene diamine penta (methylene phosphonic acid)	23605-74-5	2.00000	0.00033
K-BAC 1020	J.S. Well Services	Anti-Bacterial Agent				
			2,2-dibromo-3-nitropropionamide	10222-01-2	20.00000	0.00404
			Deionized Water	7732-18-5	28.00000	0.00231
AP One	J.S. Well Services	Gel Breakers				
			Ammonium Persulfate	7727-54-0	100.00000	0.00184
AI-302	J.S. Well Services	Acid Corrosion Inhibitors				
			Water	7732-18-5	95.00000	0.00030
			2-Propyn-1-ol compound with methoxyirane	38172-91-7	15.00000	0.00005

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

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(f) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

LATITUDE 39°20'00" 1,524'

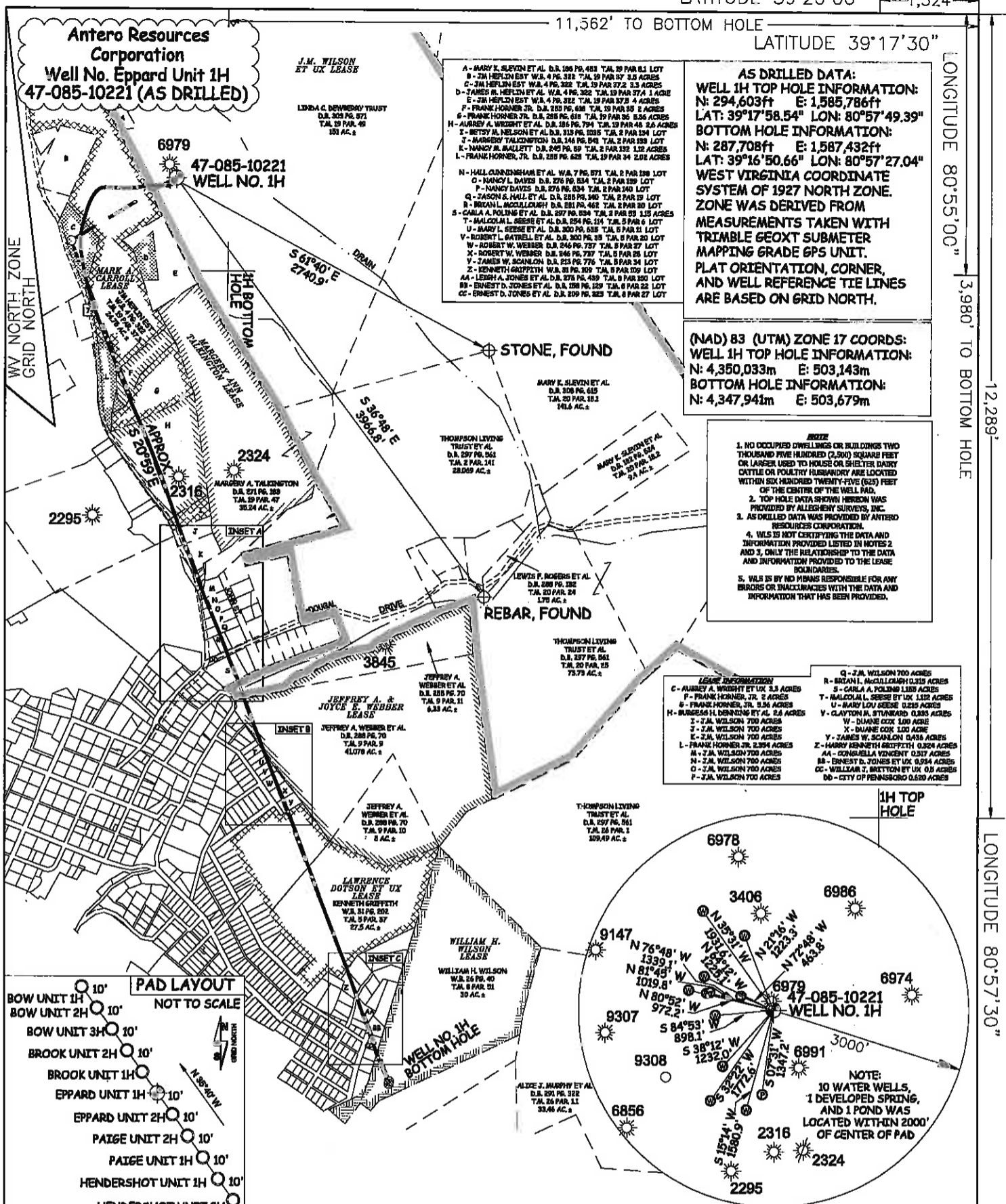
11,562' TO BOTTOM HOLE

LATITUDE 39°17'30"

LONGITUDE 80°55'00" 3,980' TO BOTTOM HOLE

LONGITUDE 80°57'30" 12,289'

Antero Resources Corporation
Well No. Eppard Unit 1H
47-085-10221 (AS DRILLED)

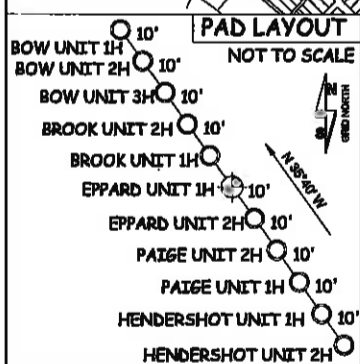
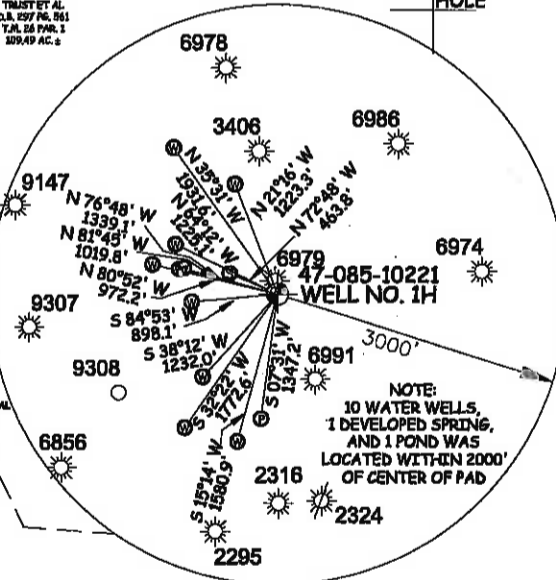


AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
N: 294,603ft E: 1,585,786ft
LAT: 39°17'58.54" LON: 80°57'49.39"
BOTTOM HOLE INFORMATION:
N: 287,708ft E: 1,587,432ft
LAT: 39°16'50.66" LON: 80°57'27.04"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

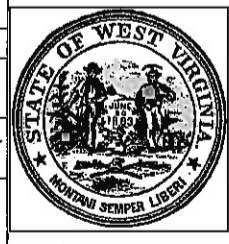
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
N: 4,350,033m E: 503,143m
BOTTOM HOLE INFORMATION:
N: 4,347,941m E: 503,679m

- DISCLAIMER
- 1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POLITICAL 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.
 - 4. WLS IS NOT VERIFYING 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.

- LEASE INFORMATION
- C - AUBREY A. WRIGHT ET UX 3.3 ACRES
 - F - FRANK HORNOR, JR. 2.8 ACRES
 - G - FRANK HORNOR, JR. 2.8 ACRES
 - H - MARGERY A. TALENTON D.B. 288 PG. 611 T.J. 19 PAR 26 2.8 ACRES
 - I - J.A. WILSON 700 ACRES
 - J - J.A. WILSON 700 ACRES
 - K - J.A. WILSON 700 ACRES
 - L - FRANK HORNOR, JR. 2.8 ACRES
 - M - J.A. WILSON 700 ACRES
 - N - J.A. WILSON 700 ACRES
 - O - J.A. WILSON 700 ACRES
 - P - J.A. WILSON 700 ACRES
 - Q - J.A. WILSON 700 ACRES
 - R - J.A. WILSON 700 ACRES
 - S - CARLA A. POLING 1.83 ACRES
 - T - MARGERY A. TALENTON D.B. 288 PG. 611 T.J. 19 PAR 26 2.8 ACRES
 - U - MARY L. REESE ET AL. D.B. 288 PG. 611 T.J. 19 PAR 26 2.8 ACRES
 - V - CLAYTON M. STANWARD 0.83 ACRES
 - W - DUANE OOK 100 ACRES
 - X - DUANE OOK 100 ACRES
 - Y - JAMES W. SCANLON 0.83 ACRES
 - Z - HARRY KENNETH BRITTON 0.83 ACRES
 - AA - CONGELLA VONENT 0.83 ACRES
 - BB - ERNEST D. JONES ET UX 0.83 ACRES
 - CC - WILLIAM J. BRITTON ET UX 0.83 ACRES
 - DD - CITY OF PENNSBORO 0.83 ACRES



JOB # 14-121WA
DRAWING # EPPARD1HAD
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



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

LEGEND
--- Surface Owner Boundary Lines +/-
--- Interior Surface Tracts +/-
X Existing Fence
⊕ Found monument, as noted
○ Proposed Well Path
○ As Drilled Well Path
DATE 01/29/16
OPERATOR'S WELL# EPPARD UNIT #1H

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
LOCATION: ELEVATION 1,124' ORIGINAL - 1,118' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER
QUADRANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE
SURFACE OWNER LINDA C. DEWBERRY TRUST ACREAGE 151 ACRES +/-
OIL & GAS ROYALTY OWNER SEE LEASE INFORMATION ABOVE LEASE ACREAGE SEE LEASE INFORMATION ABOVE

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 6,418' TVD 13,537' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME PERMIT

LATITUDE 39°20'00" —1,524'

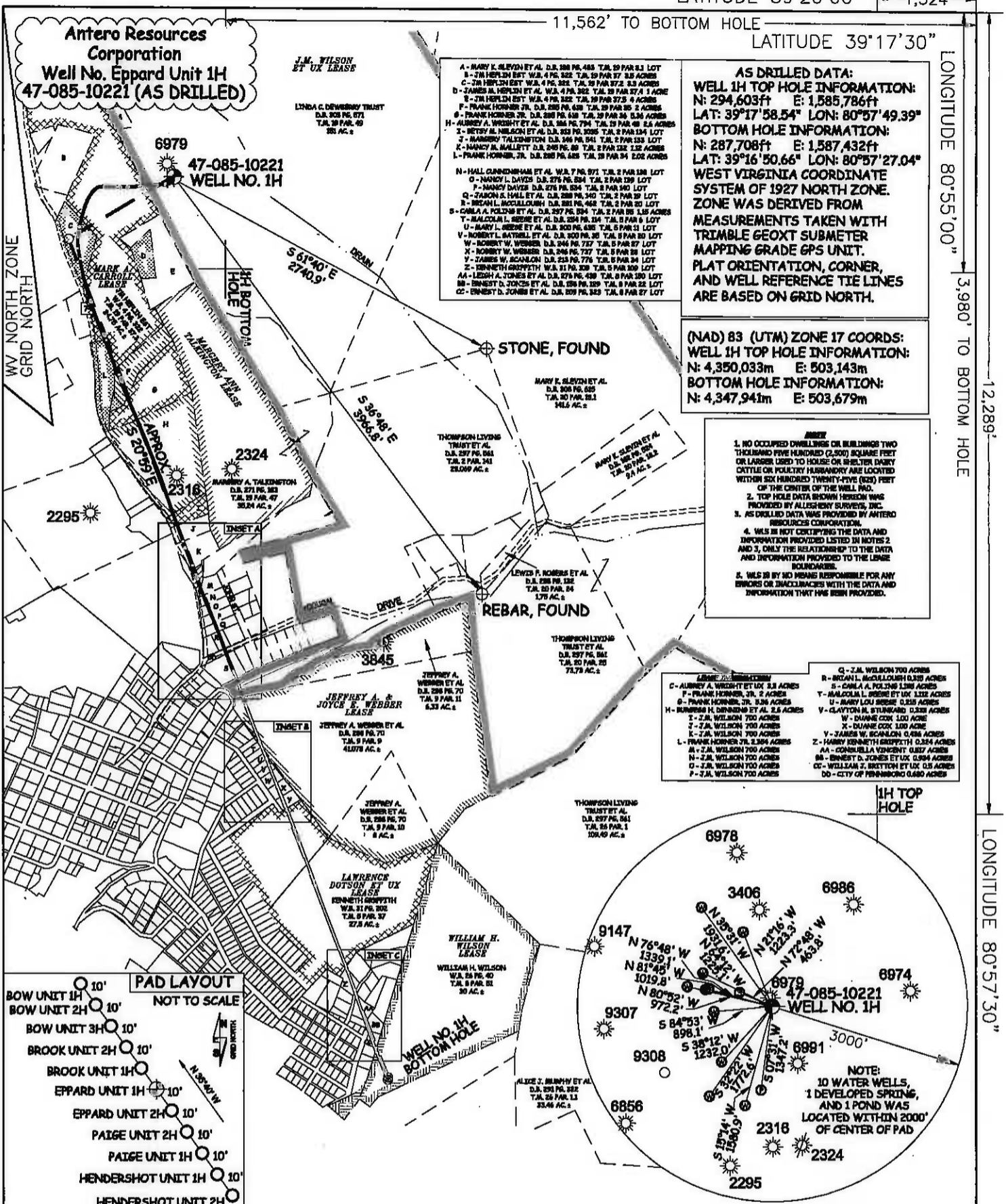
11,562' TO BOTTOM HOLE

LATITUDE 39°17'30"

LONGITUDE 80°55'00" —3,980' TO BOTTOM HOLE

12,289'

LONGITUDE 80°57'30"



Antero Resources Corporation
Well No. Eppard Unit 1H
47-085-10221 (AS DRILLED)

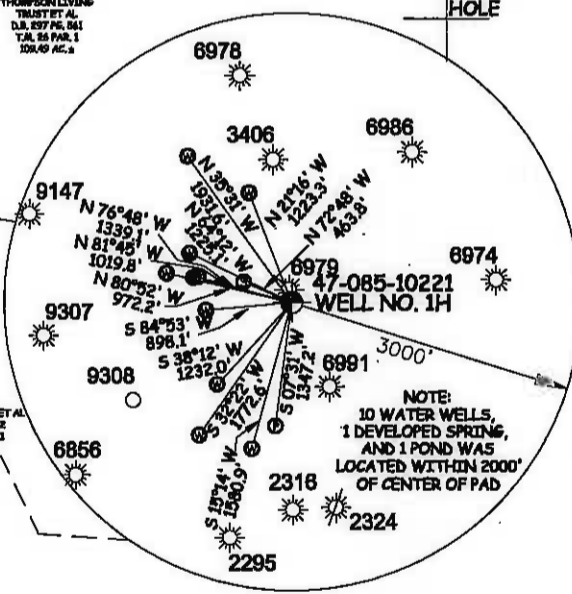
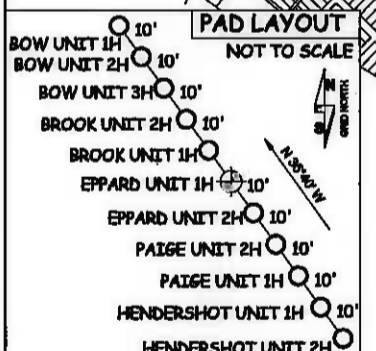
- A - MARY K. SLEIGH ET AL. D.B. 200 PG. 455 T.A. 20 PAR 21 LOT 8 - 7/8 HERTON EST. W.A. 4 PG. 322 T.A. 19 PAR 27 2.8 ACRES
- B - J.M. WILSON ET UX LEASE
- C - J.M. WILSON 700 ACRES
- D - JAMES M. HERTON ET AL. W.A. 4 PG. 322 T.A. 19 PAR 27 A 1 ACRE
- E - J.M. WILSON 700 ACRES
- F - FRANK HONNER, JR. D.B. 200 PG. 455 T.A. 20 PAR 25 2 ACRES
- G - FRANK HONNER, JR. D.B. 200 PG. 455 T.A. 20 PAR 24 0.36 ACRES
- H - AUBREY A. WRIGHT ET AL. D.B. 200 PG. 794 T.A. 20 PAR 48 2.4 ACRES
- I - BETTY M. NELSON ET AL. D.B. 200 PG. 206 T.A. 2 PAR 124 1 LOT
- J - MARGERY TALENTON D.B. 196 PG. 541 T.A. 2 PAR 125 LOT 2
- K - MARGERY TALENTON D.B. 196 PG. 541 T.A. 2 PAR 122 1.2 ACRES
- L - FRANK HONNER, JR. D.B. 200 PG. 455 T.A. 20 PAR 24 2.02 ACRES
- M - HALL CANNONHAM ET AL. W.A. 7 PG. 971 T.A. 2 PAR 126 LOT 2
- N - MARGY L. DAVIS D.B. 276 PG. 204 T.A. 2 PAR 120 LOT 2
- O - MARGY L. DAVIS D.B. 276 PG. 204 T.A. 2 PAR 120 LOT 1
- P - MARGY L. DAVIS D.B. 276 PG. 204 T.A. 2 PAR 120 LOT 1
- Q - JACOB R. HALL ET AL. D.B. 200 PG. 340 T.A. 2 PAR 121 LOT 2
- R - MIZAN L. MCCLOUGH D.B. 200 PG. 468 T.A. 2 PAR 20 LOT 2
- S - CARLA A. POLSON ET AL. D.B. 207 PG. 204 T.A. 2 PAR 20 1.18 ACRES
- T - MIZAN L. MCCLOUGH ET AL. D.B. 200 PG. 341 T.A. 2 PAR 121 LOT 1
- U - MARY L. SIESE ET AL. D.B. 200 PG. 455 T.A. 2 PAR 21 LOT 2
- V - ROBERT L. BATTRELL ET AL. D.B. 200 PG. 35 T.A. 2 PAR 20 LOT 2
- W - ROBERT W. WEBBER D.B. 244 PG. 727 T.A. 2 PAR 27 LOT 2
- X - ROBERT W. WEBBER D.B. 244 PG. 727 T.A. 2 PAR 28 LOT 2
- Y - JAMES W. SCANLON D.B. 223 PG. 774 T.A. 2 PAR 24 LOT 2
- Z - JENNETH GRIFFITH W.A. 31 PG. 209 T.A. 2 PAR 209 LOT 2
- AA - LESH A. JONES ET AL. D.B. 276 PG. 499 T.A. 2 PAR 120 LOT 2
- BB - ERNEST D. JONES ET AL. D.B. 200 PG. 229 T.A. 2 PAR 22 LOT 2
- CC - ERNEST D. JONES ET AL. D.B. 200 PG. 229 T.A. 2 PAR 27 LOT 2

AS DRILLED DATA:
WELL 1H TOP HOLE INFORMATION:
 N: 294,603ft E: 1,585,786ft
 LAT: 39°17'58.54" LON: 80°57'49.39"
BOTTOM HOLE INFORMATION:
 N: 287,708ft E: 1,587,432ft
 LAT: 39°16'50.66" LON: 80°57'27.04"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIANGLE GEOXT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

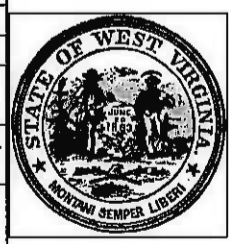
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 1H TOP HOLE INFORMATION:
 N: 4,350,033m E: 503,143m
BOTTOM HOLE INFORMATION:
 N: 4,347,941m E: 503,679m

- ABSTRACT**
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 FURNISHINGS ARE LOCATED WITHIN SIX HUNDRED THIRTY-FIVE (635) 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 LESSEE HEREON.
 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.

- LEASE INFORMATION**
- A - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - B - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - C - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - D - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - E - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - F - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - G - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - H - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - I - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - J - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - K - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - L - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - M - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - N - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - O - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - P - ALBANY A. WRIGHT ET AL. 1.8 ACRES
 - Q - J.M. WILSON 700 ACRES
 - R - MIZAN L. MCCLOUGH D.B. 200 PG. 468 T.A. 2 PAR 20 1.18 ACRES
 - S - CARLA A. POLSON ET AL. D.B. 207 PG. 204 T.A. 2 PAR 20 1.18 ACRES
 - T - MIZAN L. MCCLOUGH ET AL. D.B. 200 PG. 341 T.A. 2 PAR 121 LOT 1
 - U - MARY L. SIESE ET AL. D.B. 200 PG. 455 T.A. 2 PAR 21 LOT 2
 - V - CLAYTON H. STANARD 0.328 ACRES
 - W - DUANE COX 100 ACRES
 - X - DUANE COX 100 ACRES
 - Y - JAMES W. SCANLON 0.36 ACRES
 - Z - HARRY KENNETH GRIFFITH 0.204 ACRES
 - AA - CARLA A. POLSON 0.357 ACRES
 - BB - ERNEST D. JONES ET AL. 0.54 ACRES
 - CC - WILLIAM Z. BRITTON ET UX 0.5 ACRES
 - DD - CITY OF PENNSBORO 0.880 ACRES



JOB # 14-121WA
 DRAWING # EPPARD1HAD
 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 1,124' ORIGINAL - 1,118' AS DRILLED WATERSHED NORTH FORK HUGHES RIVER
 QUADRANGLE PENNSBORO 7.5 DISTRICT CLAY COUNTY RITCHIE
 SURFACE OWNER LINDA C. DEWBERRY TRUST ACREAGE 151 ACRES +/-
 OIL & GAS ROYALTY OWNER SEE LEASE INFORMATION ABOVE



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

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

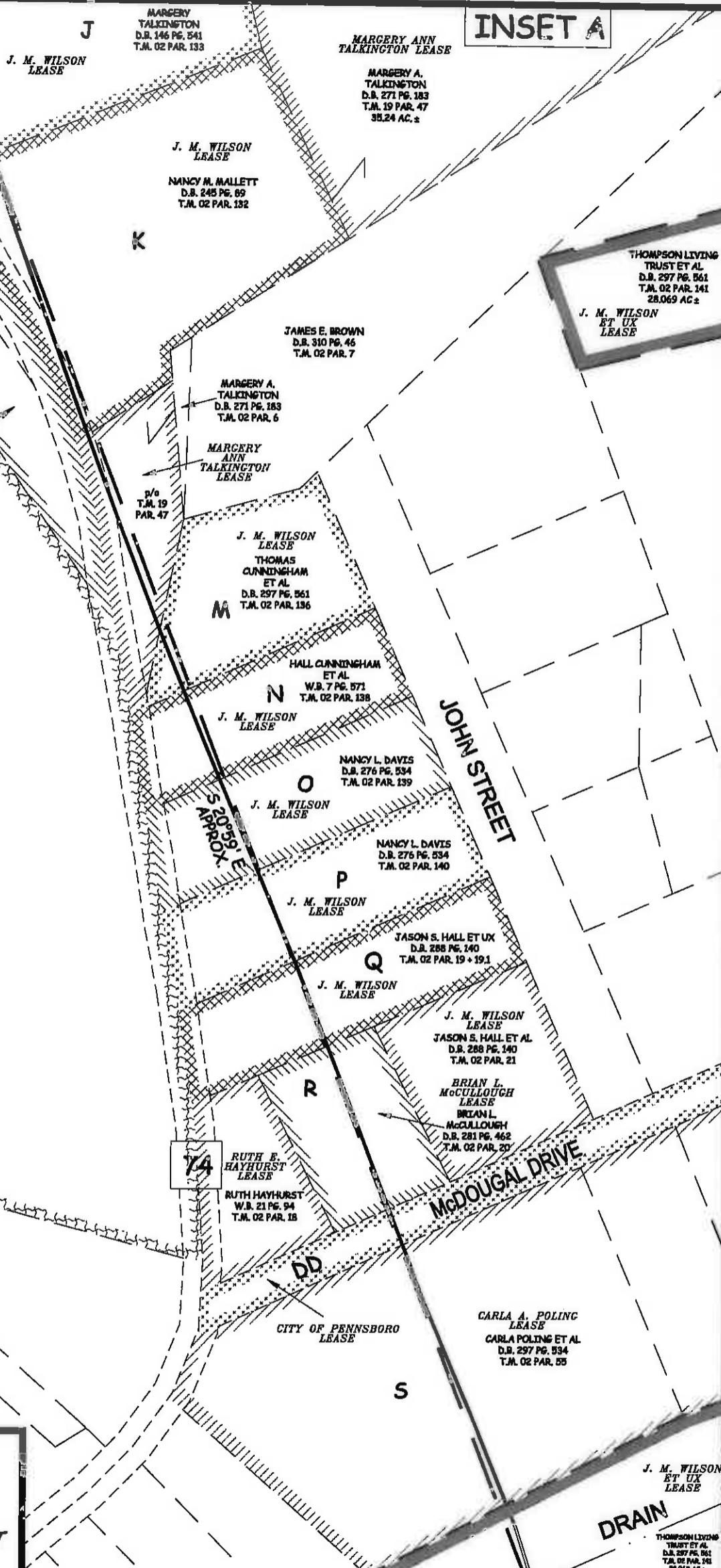
DATE 01/29/16
 OPERATOR'S WELL# EPPARD UNIT #1H
 API WELL # 47 085 10221
 STATE COUNTY PERMIT

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 6,418' TVD 13,537' MD
 WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT DIANNA STAMPER
 ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
 FORM WW-6 DENVER, CO 80202 CHARLESTON, WV 25313

COUNTY NAME PERMIT

INSET A

WV NORTH ZONE
GRID NORTH



J. M. WILSON LEASE
 JOHN C. HEUER
 D.B. 303 PG. 331
 T.M. 02 PAR. 4
 11.57 AC. ±

JOHN C. HEUER LEASE
 JOHN C. HEUER
 D.B. 303 PG. 331
 T.M. 02 PAR. 4
 11.57 AC. ±

J. M. WILSON LEASE
 NANCY M. ALLETT
 D.B. 245 PG. 69
 T.M. 02 PAR. 132

MARGERY A. TALKINGTON
 D.B. 271 PG. 183
 T.M. 02 PAR. 6

MARGERY ANN TALKINGTON LEASE

J. M. WILSON LEASE
 THOMAS CUNNINGHAM ET AL
 D.B. 297 PG. 561
 T.M. 02 PAR. 136

JAMES E. BROWN
 D.B. 310 PG. 46
 T.M. 02 PAR. 7

HALL CUNNINGHAM ET AL
 W.B. 7 PG. 571
 T.M. 02 PAR. 138

J. M. WILSON LEASE

NANCY L. DAVIS
 D.B. 276 PG. 534
 T.M. 02 PAR. 139

J. M. WILSON LEASE

NANCY L. DAVIS
 D.B. 276 PG. 534
 T.M. 02 PAR. 140

J. M. WILSON LEASE

JASON S. HALL ET UX
 D.B. 288 PG. 140
 T.M. 02 PAR. 19 + 19.1

J. M. WILSON LEASE

J. M. WILSON LEASE
 JASON S. HALL ET AL
 D.B. 288 PG. 140
 T.M. 02 PAR. 21

BRIAN L. McCULLOUGH LEASE
 BRIAN L. McCULLOUGH
 D.B. 281 PG. 462
 T.M. 02 PAR. 20

RUTH F. HAYHURST LEASE

RUTH HAYHURST
 W.B. 21 PG. 94
 T.M. 02 PAR. 18

CITY OF PENNSBORO LEASE

CARLA A. POLING LEASE
 CARLA POLING ET AL
 D.B. 297 PG. 534
 T.M. 02 PAR. 55

J. M. WILSON ET UX LEASE

THOMPSON LIVING TRUST ET AL
 D.B. 297 PG. 561
 T.M. 02 PAR. 141
 28.069 AC. ±



P.O. BOX 17
 PENNSBORO, WV 26415
 304-659-1717

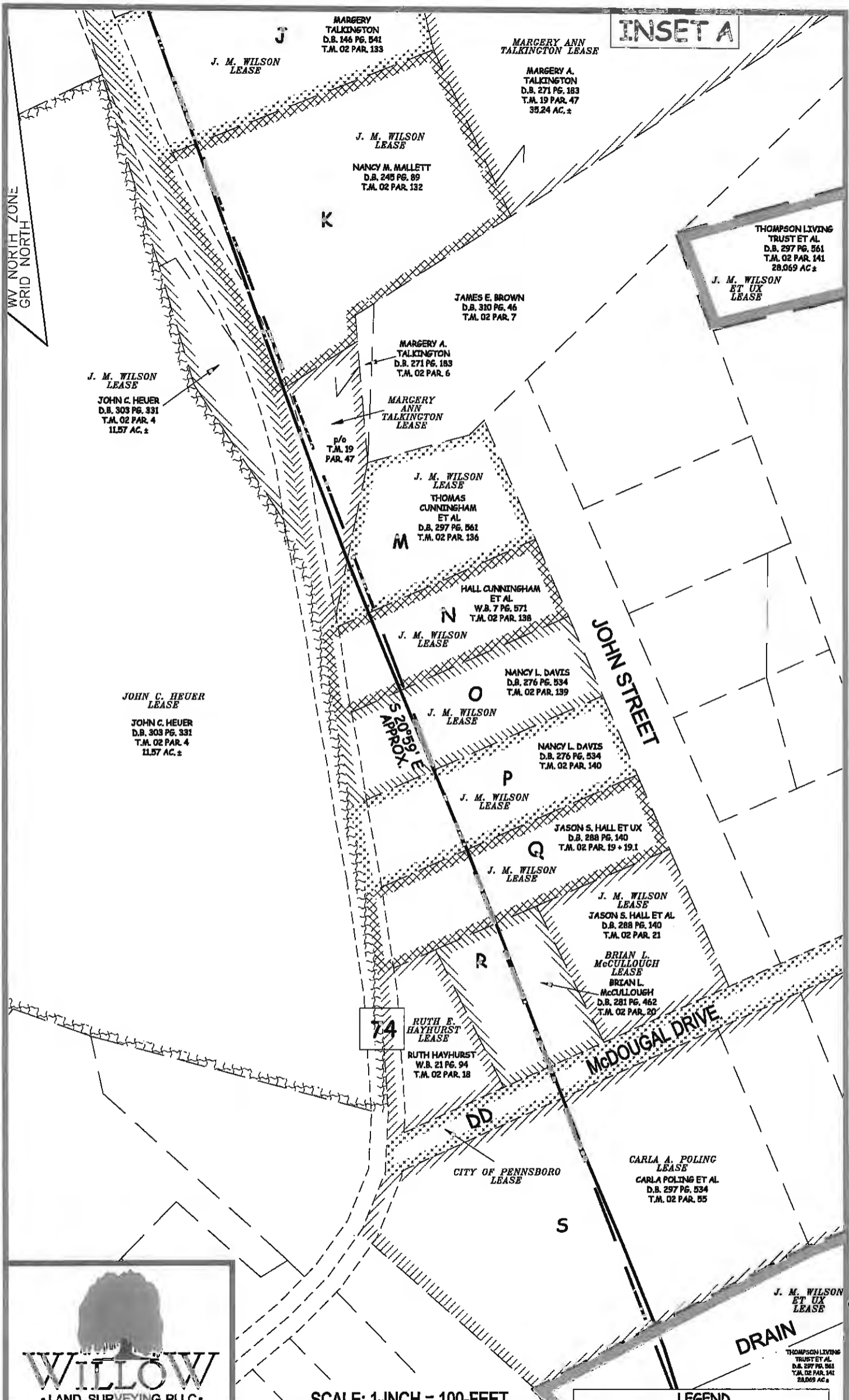
SCALE: 1-INCH = 100-Feet



LEGEND

- As Drilled Eppard 1H Lateral
- - - Proposed Eppard 1H Lateral
- Interior Surface Tracts +/- Road
- Road

INSET A



P.O. BOX 17
 PENNSBORO, WV 26415
 304-659-1717

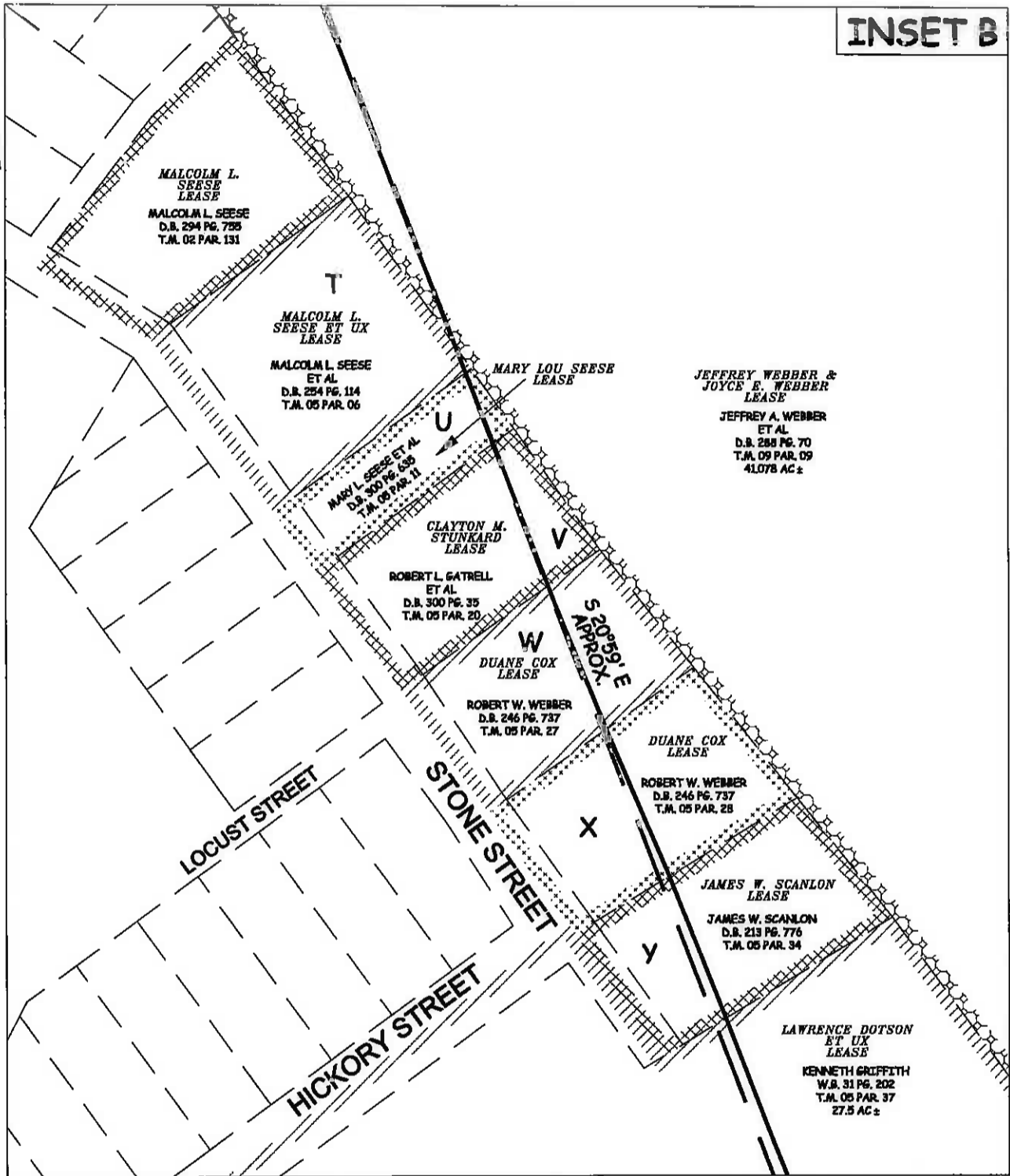
SCALE: 1-INCH = 100-FOET



LEGEND	
	As Drilled Eppard 1H Lateral
	Proposed Eppard 1H Lateral
	Interior Surface Tracts +/-
	Road

WV NORTH ZONE
GRID NORTH

INSET B



WILLOW
• LAND SURVEYING PLLC •

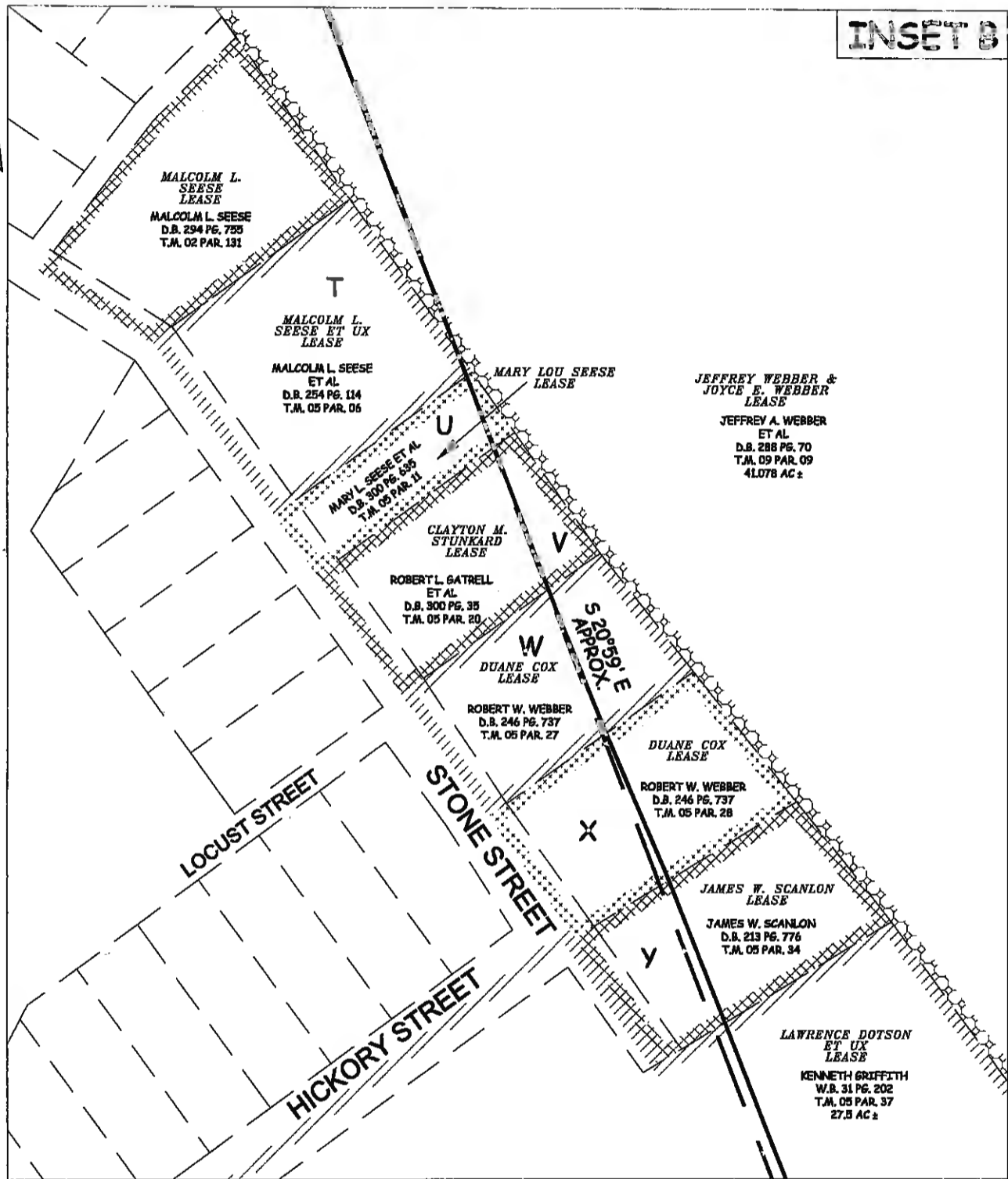
P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717



LEGEND	
	As Drilled Eppard 1H Lateral
	Proposed Eppard 1H Lateral
	Interior Surface Tracts +/-
	Road

WV NORTH ZONE
GRID NORTH

INSET B



P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SCALE: 1-INCH = 100-FEET

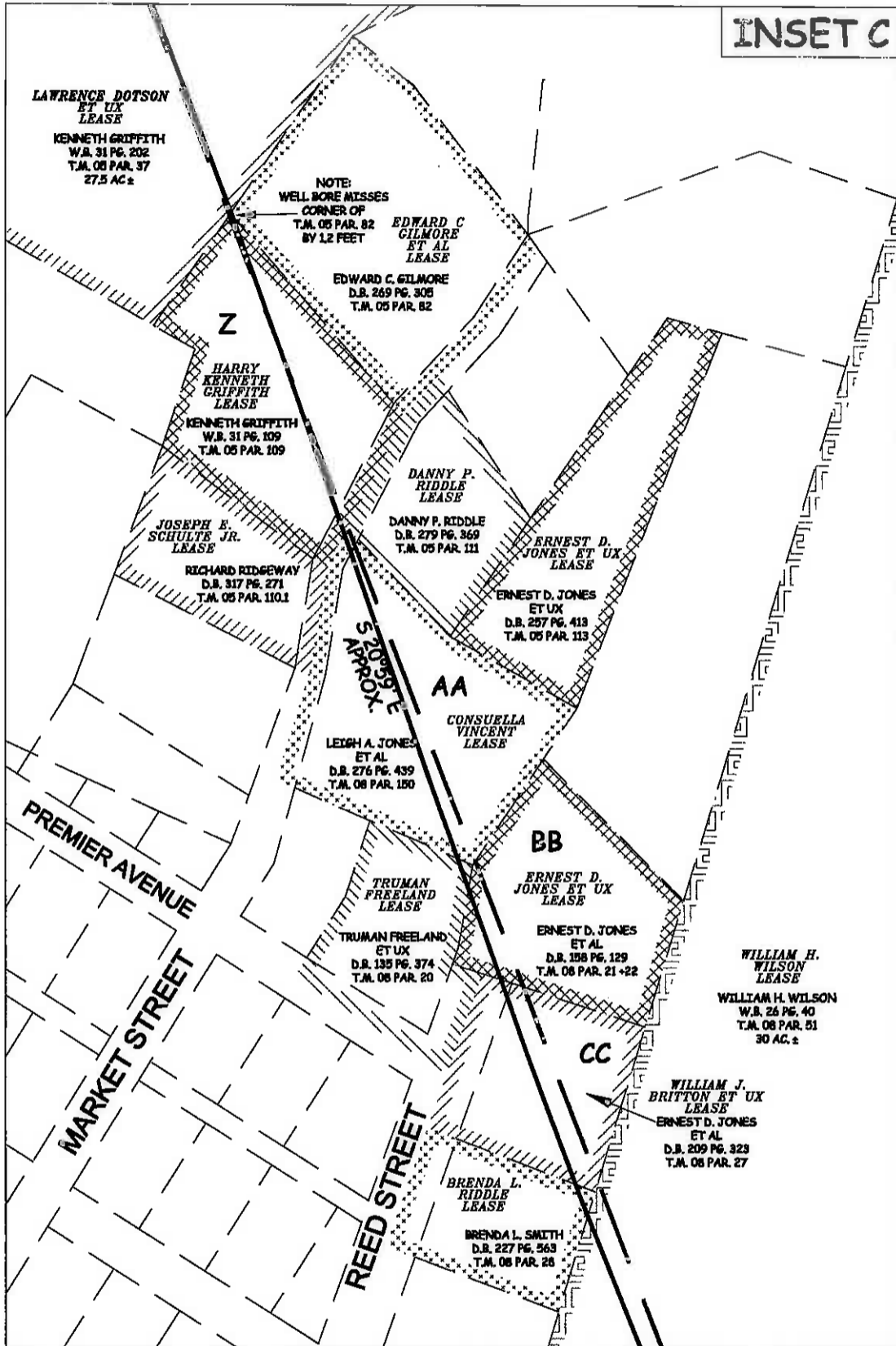


LEGEND

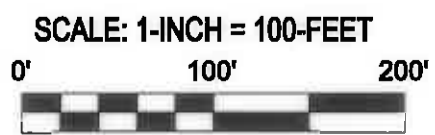
	As Drilled Eppard 1H Lateral
	Proposed Eppard 1H Lateral
	Interior Surface Tracts +/-
	Road

WV NORTH ZONE
GRID NORTH

INSET C



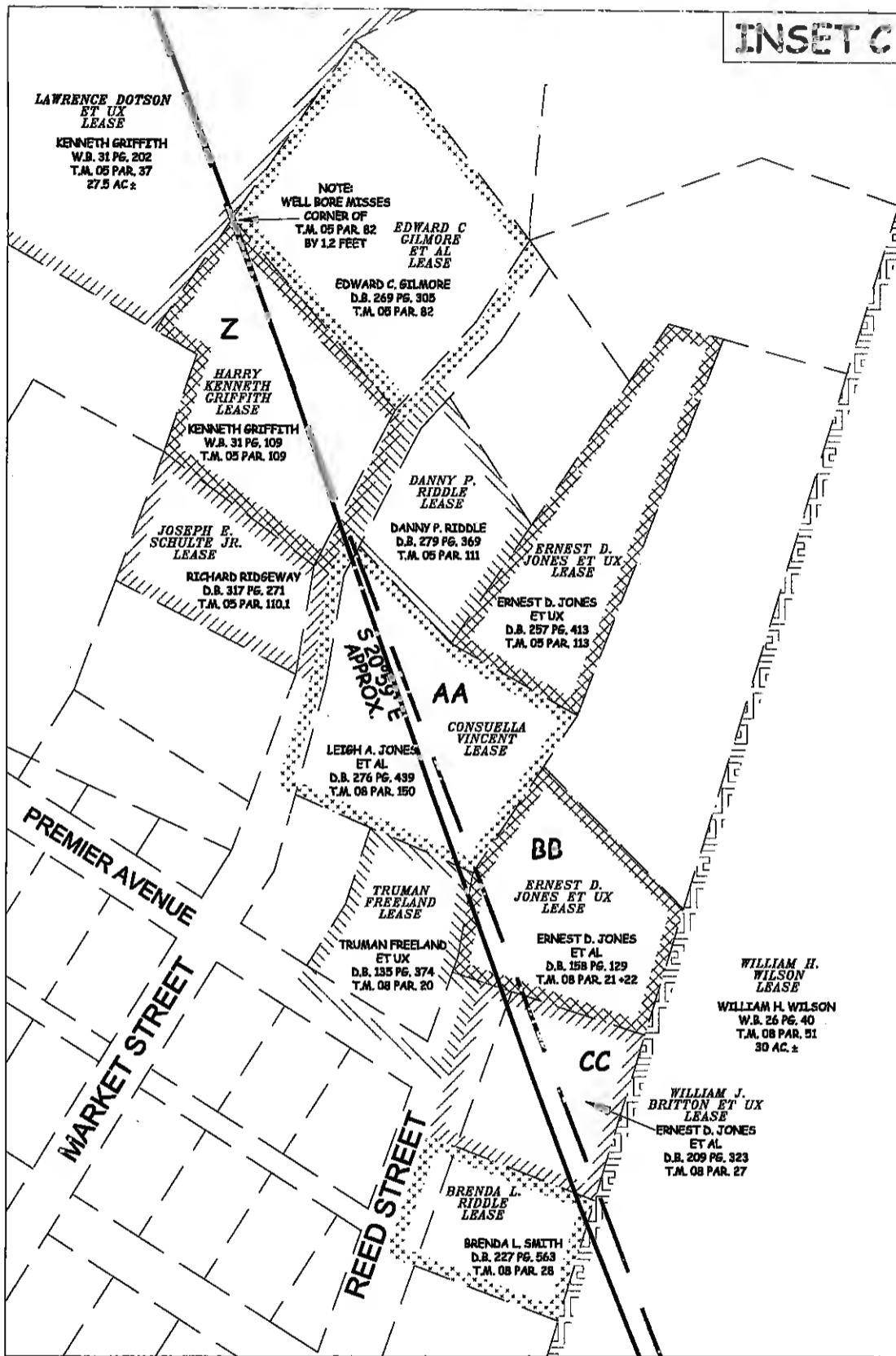
P.O. BOX 17
PENNBSORO, WV 26415
304-659-1717



LEGEND	
	As Drilled Eppard 1H Lateral
	Proposed Eppard 1H Lateral
	Interior Surface Tracts +/-
	Road

WV NORTH ZONE
GRID NORTH

INSET C



P.O. BOX 17
PENNSBORO, WV 26415
304-659-1717

SCALE: 1-INCH = 100-FEET



LEGEND

- As Drilled Eppard 1H Lateral
- Proposed Eppard 1H Lateral
- Interior Surface Tracts +/-
- Road