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WR-35
Rev. 8/23/13

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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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

API 47 - 017 - 06240 County Doddridge District New Milton
Quad New Milton 7.5' Pad Name Stewart Pad Field/Pool Name _____
Farm name Stewart, Randall Well Number Cross 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 4,337,768m Easting 529,259m
Landing Point of Curve Northing 4,337,933.60m Easting 529,278.33m
Bottom Hole Northing 4,340,054m Easting 528,629m

Elevation (ft) 1,334' 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 05/29/2013 Date drilling commenced 10/23/2013 Date drilling ceased 03/29/2014
Date completion activities began 04/09/2014 Date completion activities ceased 07/09/2014
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 372' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 962', 1217' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

Reviewed by: _____

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API 47-017 - 06240 Farm name Stewart, Randall Well number Cross 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	30"	20"	40'	New	51#; J-55	N/A	Yes
Surface	17 1/2"	13 3/8"	447'	New	48#; H-40	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,595'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	14,978'	New	20#; P-110	N/A	Yes
Tubing		2 3/8"	7,422'	New	4.7#; N-80	N/A	
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	100 sx	15.6	1.18	109	0'	8 Hrs.
Surface	Class A	532 sx	15.6	1.18	313	0'	8 Hrs.
Coal							
Intermediate 1	Class A	1,017 sx	15.6	1.18	813	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	1,167 sx (Lead); 1,164 sx (Tail)	14.2 (Lead); 15.2 (Tail)	1.3 (Lead); 1.86 (Tail)	2,951	-500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 14,979' MD, 7,362' TVD (BHL & Deepest Point Drilled) Loggers TD (ft) 14,928'

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

Plug back procedure N/A

Kick off depth (ft) 6,852'

**This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Cross Unit 1H, API #47-017-06238). Please reference the wireline logs submitted with Form WR-35 for the Cross 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 _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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API 47- 017 - 06240 Farm name Stewart, Randall Well number Cross Unit 2H

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	7,294' (top) TVD	7,408' (top) MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3,950 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 10,666 mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	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	
	0		0		

*** PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

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

Logging Company Rush Wellsite Services
Address 600 Alpha Drive City Canonsburg State PA Zip 15317

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

Stimulating Company GoFrac
Address 62787 Philips Rd. City Cambridge State OH Zip 43725

Please insert additional pages as applicable.

Completed by Megan Darling Telephone 303-357-7230
Signature Megan C. Darling Title Permitting Agent Date 07/31/2015

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

API 47-017-06240 Farm Name Stewart, Randall Well Number Cross Unit 2H

EXHIBIT 1

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	9-Apr-14	14,718	14,888	60	Marcellus
2	26-Apr-14	14,516	14,686	60	Marcellus
3	28-Apr-14	14,314	14,484	60	Marcellus
4	29-Apr-14	14,112	14,283	60	Marcellus
5	29-Apr-14	13,910	14,081	60	Marcellus
6	30-Apr-14	13,709	13,879	60	Marcellus
7	1-May-14	13,507	13,677	60	Marcellus
8	1-May-14	13,305	13,475	60	Marcellus
9	1-May-14	13,103	13,273	60	Marcellus
10	2-May-14	12,901	13,071	60	Marcellus
11	2-May-14	12,699	12,870	60	Marcellus
12	2-May-14	12,497	12,668	60	Marcellus
13	2-May-14	12,296	12,466	60	Marcellus
14	2-May-14	12,094	12,264	60	Marcellus
15	3-May-14	11,892	12,062	60	Marcellus
16	3-May-14	11,690	11,860	60	Marcellus
17	3-May-14	11,488	11,658	60	Marcellus
18	3-May-14	11,286	11,456	60	Marcellus
19	4-May-14	11,084	11,255	60	Marcellus
20	4-May-14	10,882	11,053	60	Marcellus
21	4-May-14	10,681	10,851	60	Marcellus
22	4-May-14	10,479	10,649	60	Marcellus
23*	NA*	NA*	NA*	NA*	NA*
24	5-May-14	10,075	10,245	60	Marcellus
25	5-May-14	9,873	10,043	60	Marcellus
26	5-May-14	9,671	9,841	60	Marcellus
27	6-May-14	9,469	9,640	60	Marcellus
28	6-May-14	9,267	9,438	60	Marcellus
29	6-May-14	9,066	9,236	60	Marcellus
30	6-May-14	8,864	9,034	60	Marcellus
31	7-May-14	8,662	8,832	60	Marcellus
32	7-May-14	8,460	8,630	60	Marcellus
33	9-May-14	8,258	8,428	60	Marcellus
34	9-May-14	8,056	8,226	60	Marcellus
35	10-May-14	7,854	8,025	60	Marcellus
36	10-May-14	7,653	7,823	60	Marcellus
37	10-May-14	7,451	7,621	60	Marcellus

*Engineer perforated stage 24 instead of 23, and was not caught until the stage was frac'ed, so stage 23 was skipped.

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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	25-Apr-14	73.9	7,742	6,154	5,244	168,065	6,369	N/A
2	26-Apr-14	37.8	8,359	6,913	4,875	3,700	4,799	N/A
3	28-Apr-14	77.1	7,615	6,316	4,853	235,625	6,164	N/A
4	29-Apr-14	76.7	7,712	5,936	4,414	235,635	6,355	N/A
5	30-Apr-14	70.1	7,336	5,858	5,298	145,204	6,677	N/A
6	30-Apr-14	74.1	7,839	6,610	4,290	235,615	6,126	N/A
7	1-May-14	68.9	7,411	6,170	4,406	182,870	6,518	N/A
8	1-May-14	75.6	7,265	5,935	4,851	165,385	6,624	N/A
9	1-May-14	77.0	7,706	5,985	5,032	191,535	6,690	N/A
10	2-May-14	78.4	7,683	6,037	4,481	235,610	6,055	N/A
11	2-May-14	80.6	7,725	5,804	4,617	235,625	6,046	N/A
12	2-May-14	77.3	7,716	6,028	5,105	132,580	6,409	N/A
13	2-May-14	79.3	7,518	6,142	4,806	235,710	6,118	N/A
14	2-May-14	73.3	7,386	5,954	4,738	235,620	6,015	N/A
15	3-May-14	77.5	7,328	6,234	5,029	234,925	5,979	N/A
16	3-May-14	76.1	7,540	5,949	4,812	161,630	6,681	N/A
17	3-May-14	77.1	7,262	5,917	4,242	235,620	5,967	N/A
18	4-May-14	78.8	7,305	5,702	4,838	226,325	5,952	N/A
19	4-May-14	69.6	7,867	5,896	4,422	200,310	6,338	N/A
20	4-May-14	72.2	7,676	5,840	4,726	219,965	6,424	N/A
21	4-May-14	73.3	7,340	5,894	4,794	156,660	6,396	N/A
22	5-May-14	75.2	7,010	5,937	4,754	235,595	5,934	N/A
23	5-May-14	76.6	7,305	5,786	4,658	228,405	5,894	N/A
24	5-May-14	76.6	7,305	5,786	4,658	228,405	5,894	N/A
25	5-May-14	71.6	7,289	5,796	5,608	219,465	5,965	N/A
26	6-May-14	73.9	7,200	5,911	4,758	199,210	6,195	N/A
27	6-May-14	74.5	7,234	5,882	4,729	235,620	5,835	N/A
28	6-May-14	75.5	7,266	6,825	5,434	175,600	6,128	N/A
29	6-May-14	74.6	7,513	6,961	4,838	235,595	5,952	N/A
30	7-May-14	75.0	7,158	7,374	5,587	199,250	6,270	N/A
31	7-May-14	73.7	7,150	6,160	4,597	125,885	5,322	N/A
32	9-May-14	71.8	7,448	6,852	4,907	116,510	5,910	N/A
33	9-May-14	78.1	7,569	6,863	5,213	240,045	6,010	N/A
34	10-May-14	77.8	7,363	7,043	5,091	235,625	5,743	N/A
35	10-May-14	77.1	7,544	6,496	5,170	235,785	5,785	N/A
36	10-May-14	80.6	7,315	7,152	5,162	234,465	5,914	N/A
37	10-May-14	78.6	7,290	6,650	5,231	202,155	5,998	N/A
AVG=		74.5	7,467	6,236	4,872	7,421,829	225,451	TOTAL

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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
Fresh Water	372'	NA	372'	NA
Shale/Siltstone	0	447	0	447
Sandstone	est. 447	467	est. 447	467
Shale/Siltstone	est. 467	687	est. 467	687
Sandstone	est. 687	727	est. 687	727
Shale	est. 727	827	est. 727	827
Sandstone	est. 827	887	est. 827	887
Shale	est. 887	1,127	est. 887	1,127
Sandstone	est. 1127	1,207	est. 1127	1,207
Shale	est. 1207	1,787	est. 1207	1,787
Sandstone/Siltstone	est. 1787	1,907	est. 1787	1,907
Sandstone/Siltstone with trace coal	est. 1907	1,967	est. 1907	1,967
Shale	est. 1967	2,410	est. 1967	2,410
Big Lime	2,410	2,491	2,410	2,491
Big Injun	2,491	2,700	2,491	2,700
Gantz Sand	2,700	2,854	2,700	2,854
Fifty Foot Sandstone	2,854	3,060	2,854	3,060
Gordon	3,060	3,401	3,060	3,401
Fifth Sandstone	3,401	3,478	3,401	3,478
Bayard	3,478	3,745	3,478	3,745
Warren	3,745	4,049	3,745	4,049
Speechley	4,049	4,234	4,049	4,234
Baltown	4,234	4,869	4,234	4,869
Bradford	4,869	5,328	4,869	5,328
Benson	5,328	5,581	5,328	5,581
Alexander	5,581	5,803	5,581	5,803
Elk	5,803	6,324	5,803	6,325
Rhinestreet	6,324	6,855	6,325	6,855
Sycamore	6,855	7,014	6,855	7,028
Middlesex	7,014	7,159	7,028	7,199
Burkett	7,159	7,192	7,199	7,242
Tully	7,192	7,294	7,242	7,408
Marcellus	7,294	NA	7,408	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:	4/25/2014
Job End Date:	5/9/2014
State:	West Virginia
County:	Doddridge
API Number:	47-017-06240-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Cross Unit 2H
Longitude:	-80.66138600
Latitude:	39.18855300
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,362
Total Base Water Volume (gal):	9,221,268
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Abstract Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Freshwater	Republic Energy	Frac Base	Water	7732-18-5	100.00000	91.04913	None
40/70 White Sand	US Silica	Proppant	Sand	14808-60-7	100.00000	5.13891	None
20/40 White Sand	US Silica	Proppant	Sand	14808-60-7	100.00000	2.78324	None
100 Mesh	US Silica	Proppant	Sand	14808-60-7	100.00000	0.58203	None
SOS 1545	Ultrablend	Guar Gel	Hydrocarbons	64741-85-1	70.00000	0.08238	None
Plexslick 953	Chemplex	Friction Reducer	Water	7732-18-5	35.00000	0.01954	None
			Polyacrylamide-co-acrylic acid	Proprietary	32.00000	0.01787	None
			Hydrotreated Petroleum Distillate	64742-47-8	30.00000	0.01675	None
			Alcohol Ethoxylate Surfactants	Proprietary	8.00000	0.00447	None
HCl Acid 10-15%	GoFrac	Acid	Hydrochloric Acid	7647-01-0	15.00000	0.03407	None
Plexicide 15G	Chemplex	Biocide	Water	7732-18-5	90.00000	0.01623	None

			Glutaraldehyde	111-30-8	14.00000	0.00252	None
			Ethanol	64-17-5	3.00000	0.00054	None
			Alkyl Dimethyl Benzyl Ammonium Chloride	68424-85-1	3.00000	0.00054	None
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00054	None
Plexaid 673	Chemplex	Scale Inhibitor	Water	7732-18-5	85.00000	0.01288	None
			Methyl Alcohol	67-56-1	25.00000	0.00379	None
			Sodium Salt of Phosphonodimethylated Diamine	Proprietary	5.00000	0.00076	None
Sodium Persulfate	Chemplex	Active Breaker	Sodium Persulfate	7775-27-1	100.00000	0.00163	None
Greenflush	Chemplex	Cleaner	Alcohol Ethoxylate Surfactants	Proprietary	10.00000	0.00099	None
Ferriplex 66	Chemplex	Iron Control	Acetic Acid	64-19-7	50.00000	0.00025	None
			Water	7732-18-5	35.00000	0.00017	None
			Citric Acid	77-92-9	30.00000	0.00015	None
Plexhib 256	Chemplex	Corrosion Inhibitor	Methyl Alcohol	67-56-1	70.00000	0.00026	None
			Alcohol Ethoxylate Surfactants	Proprietary	30.00000	0.00011	None
			Thiourea-formaldehyde copolymer	68527-49-1	30.00000	0.00011	None
			n-olefins	Proprietary	10.00000	0.00004	None
			Propargyl Alcohol	107-19-7	8.00000	0.00003	None
Plexbreak 145	Chemplex	Non-Emulsifier	Water	7732-18-5	66.00000	0.00027	None
			Ethylene Glycol Monobutyl Ether	111-76-2	15.00000	0.00006	None
			Methyl Alcohol	67-56-1	15.00000	0.00006	None
			Cocamide Diethanolamine Salt	68603-42-9	10.00000	0.00004	None
			Diethanolamine	111-42-2	5.00000	0.00002	None

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

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LATITUDE 39°12'30"

10,314'

541' TO BOTTOM HOLE
LATITUDE 39°15'00"

LONGITUDE 80°40'00"

7,197'

14,860' TO BOTTOM HOLE

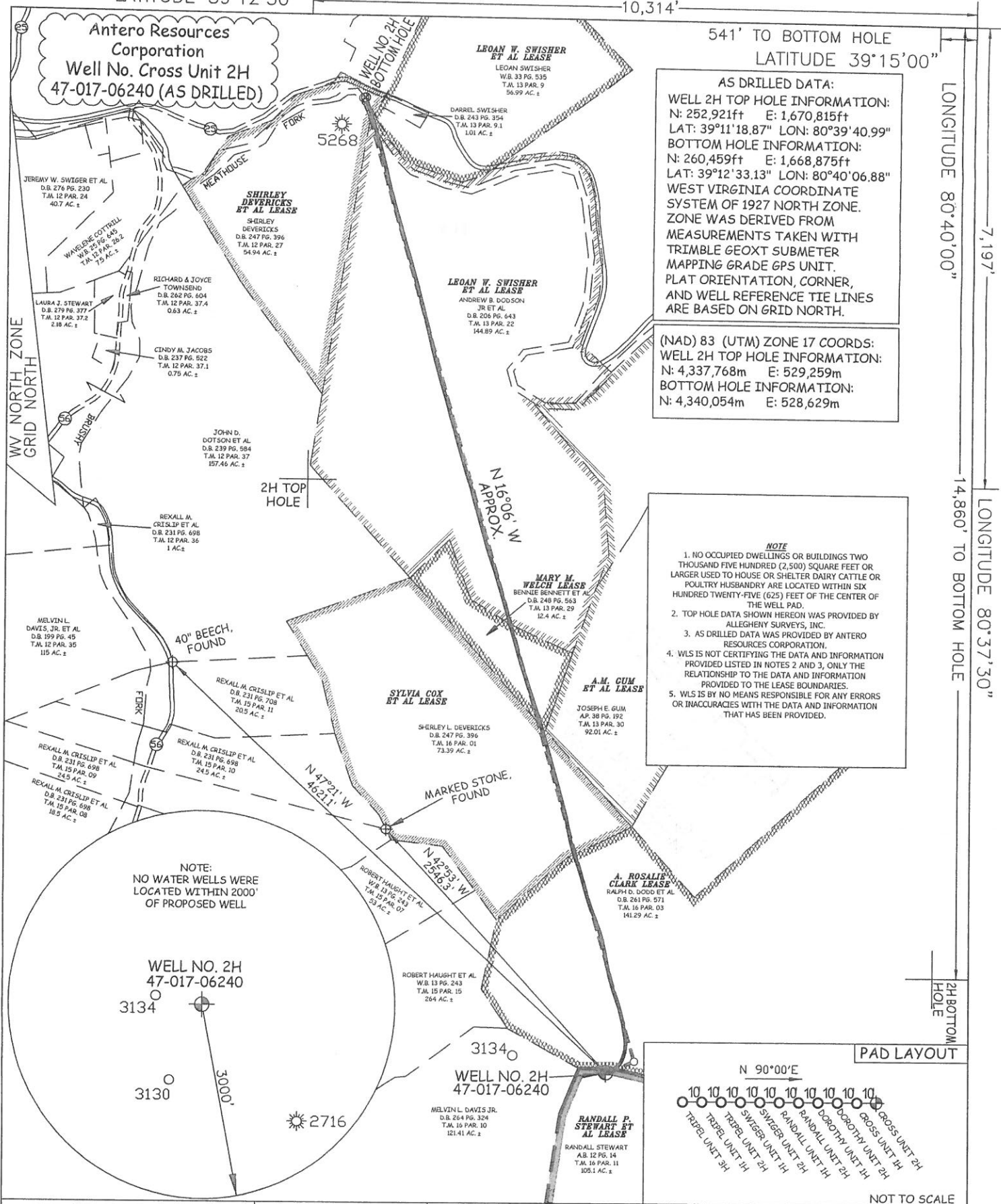
LONGITUDE 80°37'30"

2H TOP HOLE

2H BOTTOM HOLE

PAD LAYOUT

NOT TO SCALE



AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
 N: 252,921ft E: 1,670,815ft
 LAT: 39°11'18.87" LON: 80°39'40.99"
BOTTOM HOLE INFORMATION:
 N: 260,459ft E: 1,668,875ft
 LAT: 39°12'33.13" LON: 80°40'06.88"
 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.

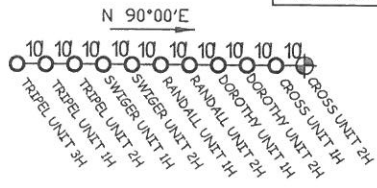
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
 N: 4,337,768m E: 529,259m
BOTTOM HOLE INFORMATION:
 N: 4,340,054m E: 528,629m

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.
 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.

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

WELL NO. 2H
 47-017-06240

WELL NO. 2H
 47-017-06240



JOB # 12-118WA
 DRAWING # CROSS2HAD
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY SUBMETER
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS



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

WILLOW LAND SURVEYING PLLC
 P.O. BOX 17
 PENNSBORO, WV 26415

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

DATE 04/22/15
 OPERATOR'S WELL # CROSS UNIT #2H

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 1,361' ORIGINAL - 1,334' AS-DRILLED WATERSHED HEADWATERS MIDDLE ISLAND CREEK
 QUADRANGLE NEW MILTON 7.5' DISTRICT NEW MILTON COUNTY DODDRIDGE
 SURFACE OWNER RANDALL STEWART ACREAGE 105.1 ACRES +/-
 OIL & GAS ROYALTY OWNER RANDALL P. STEWART, ET AL.; A. ROSALIE CLARK; SYLVIA COX ET AL.; MARY M. WELCH; LEOAN W. SWISHER ET AL.; LEOAN W. SWISHER ET AL.; SHIRLEY DEVERICKS ET AL. LEASE ACREAGE 195 ACRES±; 141.46 ACRES±; 73 ACRES±; 12.4 ACRES±; 178.14 ACRES±; 56.99 ACRES±; 57.475 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
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 7,362' TVD 14,979' MD

API WELL # 47 - 017 - 06240
 STATE COUNTY PERMIT
 DIANNA STAMPER
 CT CORPORATION SYSTEM
 5400 D BIG TYLER ROAD
 CHARLESTON, WV 25313

WELL OPERATOR ANTERO RESOURCES CORP. ADDRESS 1615 WYNKOOP STREET DENVER, CO 80202
 DESIGNATED AGENT ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313