



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Jim Justice, Governor
Austin Caperton, Cabinet Secretary
www.dep.wv.gov

August 3, 2017
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

JAY-BEE OIL & GAS, INC.
1720 RT. 22 E

UNION, NJ 070830000

Re: Permit Modification Approval for P2S6U
47-073-02561-00-00

Modified Lateral for an Extension into Additional Leases

JAY-BEE OIL & GAS, INC.

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin
Chief

Operator's Well Number: P2S6U
Farm Name: MORGAN VALLEY FARMS
U.S. WELL NUMBER: 47-073-02561-00-00
Horizontal 6A / New Drill
Date Issued: August 3, 2017

Promoting a healthy environment.

08/04/2017



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Jim Justice, Governor
Barry K. Lay, Chairman
ogcc.wv.gov

July 17, 2017

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-073-02561

COMPANY: Jay-Bee Oil & Gas, Inc.

FARM: Morgan Valley Farms #P2S6U

COUNTY: Pleasants DISTRICT: Union QUAD: Bens Run

The deep well review of the application for the above company is Approved to drill to Trenton for Point Pleasant completion.

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? no
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; yes
Docket 245-234 Exception location hearing
4. Provided a plat showing that the proposed location is a distance of 410± feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines
Administrator

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P256U WELL SITE 1500' OPERATOR NOTIFICATION

Tract	Operator	Street Address	PHONE	Well Name	API Number	Formation
P7221 (TM12 P30)	Triad Hunter, LLC	125 Putnam St., Marietta, OH 45750	740-374-2940	R Butcher 3	47-073-00772	Gordon
	Triad Hunter, LLC	125 Putnam St., Marietta, OH 45750	740-374-2940	R Butcher 2	47-073-00771	Gordon
	Triad Hunter, LLC	125 Putnam St., Marietta, OH 45750	740-374-2940	R Butcher 1	47-073-00785	Gordon
P7251 (TM7 P32)	BB Land, LLC (leaseholder)	75 Crosswinds Drive, Bridgeport, WV 26330	304-933-3878	2	47-073-00796	Unknown
	Triad Hunter, LLC	125 Putnam St., Marietta, OH 45750	740-374-2940	OC Langford 2	47-073-00770	Gordon
P7215 (TM12 P10)	BB Land, LLC (leaseholder)	75 Crosswinds Drive, Bridgeport, WV 26330	304-933-3878	Unknown	47-073-00104A	Unknown
	BB Land, LLC (leaseholder)	75 Crosswinds Drive, Bridgeport, WV 26330	304-933-3878	Isa Smith 1	47-073-00060	Big Injun
	Triad Hunter, LLC	125 Putnam St., Marietta, OH 45750	740-374-2940	Lanford 508	47-073-02426	Marcellus
P7220 (TM7 P24, 32, 2)	Triad Hunter, LLC	125 Putnam St., Marietta, OH 45750	740-374-2940	OC Langford 2	47-073-00769	Gordon
P7217 (TM12 P7)	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
Antero IM 12/19.1	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
Antero TM 12/19	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
P7254A (TM12 P29.1)	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
P7254G (TM12 P28.4)	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
P7254F (TM12 P28.4)	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
Antero (TM12 P28.1)	Antero Resources Appalachian Corporation	1625 17th Street, Suite 300, Denver, CO 80202	303-357-7310	Unleased Mineral/Surface owner or Lessee		
P7255A (TM12 P28.5)	Siltstone Resources II, LLC	600 Jefferson St, Houston, TX 77002	713-759-0450	Unleased Mineral/Surface owner or Lessee		

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Jay-Bee Oil & Gas, Inc. 24610 Pleasants Union Ben's Run 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: P2S6U Well Pad Name: P2

3) Farm Name/Surface Owner: Morgan Valley Farms Public Road Access: Beech Run Rd / CR 36

4) Elevation, current ground: 722.5 Elevation, proposed post-construction: 712.2

5) Well Type (a) Gas X Oil Underground Storage

Other

(b) If Gas Shallow Deep X

Horizontal X

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant: 10,590' Depth, 106' Thickness, 8000 psi, Trenton: 10,875' Depth Thickness, 180' Thickness, 8000 psi~

8) Proposed Total Vertical Depth: 10,875' TVD, 10,590' TVD (Horizontal section)

9) Formation at Total Vertical Depth: Trenton (TVD) Point Pleasant (Horizontal)

10) Proposed Total Measured Depth: 18,435'

11) Proposed Horizontal Leg Length: 6,972

12) Approximate Fresh Water Strata Depths: 110'

13) Method to Determine Fresh Water Depths: Middle Island Creek

14) Approximate Saltwater Depths: 955'

15) Approximate Coal Seam Depths: N/A

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No X

(a) If Yes, provide Mine Info: Name:

Depth:

Seam:

Owner:

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18) **CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	26	New	A500	85 lb./ft	30'	30'	CTS 49 Cu. Ft.
Fresh Water	20	New	J55	94 lb./ft	300'	300'	CTS 288 Cu. Ft.
Coal	13 3/8	New	J55	61 lb./ft	1,800'	1,800'	CTS 1,250 Cu. Ft.
Intermediate	9 5/8	New	HCP-110	47 lb./ft	7,100'	7,100'	1,910 Cu. Ft.
Production	5 1/2	New	P110	23 lb./ft	18,435'	18,435'	3,994 Cu. Ft.
Tubing	N/A						
Liners	N/A						

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	26	30	.375	N/A	50	Class A	1.18-1.20
Fresh Water	20	24	.438	2,110	1,000	Class A	1.18-1.20
Coal	13 3/8	17 1/2	.480	3,090	1,500	Class A	1.18-1.24
Intermediate	9 5/8	12 1/4	.472	9,440	2,000	Class A	1.18-3.00
Production	5 1/2	8 1/2	.415	16,800	2,500	Type 1 Cement	1.36-2.08
Tubing	N/A						
Liners	N/A						

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

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19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill vertical section of this well into the Trenton for logging purposes and to gather information. After that is complete we will plug back the well with a solid cement plug to from TD to KOP, effectively plugging the Trenton formation, and drill a Horizontal section through the Point Pleasant formation.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

+/- 200' per stage using 8,000bbls of water per stage and approx. 180,000-200,000lbs. of sand Friction reducer at a 1.0gpt ratio Scale inhibitor at a .25gpt ratio biocide for prevention of bacteria growth at a .25gpt ratio and 2000 gallons of 15% acid @ 70-80BPM with pressure ranging from 6,000 to 11,000PSI. The use of a gelling agent and a breaker may be used if needed throughout the fracturing process. Water and sand will make up approximately 99% of the fluid used to stimulate with.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 11.84

22) Area to be disturbed for well pad only, less access road (acres): 9.04

23) Describe centralizer placement for each casing string:

Conductor: None
Surface: 1 on joint above shoe and then one every 4th joint to surface
Intermediate 2 Strings: 1 on joint above shoe and then on every 4th joint to surface
Production: Horizontal every 42' Spiral Centralizer, Curve - every 84' Spiral Centralizer. Vertical every 500' to surface

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives
Surface: Class A Cement, 2% Calcium Chloride, 1/4# flake
Intermediate 1: Class A Cement 2% Calcium Chloride, 1/4# flake
Intermediate 2:
Production: Type1 Cement, Fly Ash, Barite, Finetol 300L, R-3 Celio Flake, CD-32, FL-62

25) Proposed borehole conditioning procedures:

Air Hole: 24" 17 1/2" & 12 1/4" - Circulate until clean with air. If soaping, slug then dry.

8 1/2" Hole drilled on fluid for the 5 1/2" casing will be circulated 5-6 bottoms up and minimum of 2 heavy weighted sweeps will be pumped to ensure all cuttings are circulated continued until no cuttings are retrieved

*Note: Attach additional sheets as needed.

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
P7251	Lori Jean Barbarow	BB Land, LLC	12.5%	259-482
P7221	Triad Hunter, LLC	BB Land, LLC	12.5%	270-266
P7221A	Francis Kaess	BB Land, LLC	12.5%	309-499
P7214	Morgan Valley Farms	BB Land, LLC	12.5%	307-487
P7215	Rodney Ray Holmes	BB Land, LLC	12.5%	306-025
P7065	Ridgetop Capital	BB Land, LLC	12.5%	294-254
P7068	Ridgetop Capital	BB Land, LLC	12.5%	294-254
PA101	John & Edith Smith	BB Land, LLC	12.5%	At Recorder

Acknowledgement of Possible Permitting/Approval

In Addition to the Office of Oil and Gas

Affidavit

BB Land, LLC

Jay-Bee Oil & Gas, Inc

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Jay-Bee Oil & Gas, Inc

By: Shane Dowell

Its: Office Manager





July 14, 2017

JB Exploration I, LLC
 3570 Shields Hill Road
 Cairo, WV 26337

Re: Amendment to Acreage Trade Agreement dated and made effective April 21, 2017 (“Acreage Trade”), by and between Antero Resources Corporation (“Antero”) and JB Exploration I, LLC (“JB”).

Dear Mr. Paugh:

Antero and JB have mutually agreed to extend the closing date under the Acreage Trade to allow additional time to cure asserted defects. Therefore, Antero proposes to amend the Closing Date set forth in Paragraph III.B of that certain Acreage Trade Agreement dated April 21, 2017, from July 14, 2017 to July 21, 2017.

Additionally, Parties desire to amend Acreage Trade Agreement, as follows so as to include certain additional leases:

1. Exhibit A shall be amended to include the following lease:

COUNTY	DISTRICT	LESSOR	LEASE DATE	CONVEYED GROSS ACRES	BK	PG	CONVEYED TAX ID	CONVEYED NET ACRES	CONVEYED NRI ACRES
Pleasants	Union	John A. Smith and Edith Smith	7/28/2014	26.0	298	354	7-12-26	26.0	21.84

2. Exhibit B shall be amended to include the following lease:

COUNTY	DISTRICT	LESSOR	LEASE DATE	GROSS ACRES	BK	PG	TAX ID	NET ACRES	NRI ACRES
Doddridge	Southwest	Martha Caldwell	3/28/2006	100.04	206	372	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Martha Caldwell	4/1/2006	100.04	206	384	7-13-60, 60.1	" "	" "
Doddridge	Southwest	George A. Hickman	4/5/2006	100.04	206	400	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Mae H. Lewis	4/4/2006	100.04	206	416	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Claris H. Fleming	4/5/2006	100.04	206	618	7-13-60, 60.1	20.08	16.2648
Doddridge	Southwest	Claude A. Hickman	4/26/2006	100.04	207	138	7-13-60, 60.1	20.08	16.2648

08/04/2017

Except for this amendment, all other terms and provisions of the Acreage Trade shall remain in force and effect. Capitalized terms not defined herein shall have the meaning set forth in the Acreage Trade.

If you are in agreement with the foregoing proposal, please execute this letter in the space provided below and return an executed copy of this letter at your earliest convenience. Facsimile or .pdf signatures shall be considered binding. If you have any questions, please give Houston Eagleston a call at (303) 357-6737.

Sincerely,

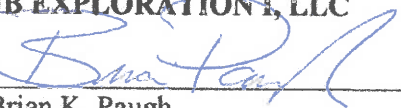
ANTERO RESOURCES CORPORATION



W.J. Pierini
Vice President- Land

AGREED AND ACCEPTED THIS 14th DAY OF JULY, 2017.

JB EXPLORATION I, LLC



Brian K. Paugh
Vice President- Land

08/04/2017

Exhibit 'A'

Attached hereto and made part of that certain Acreage Trade Agreement dated April 21, 2017 by and between Antero Resources Corporation and Jay-Bee Exploration I, et al.

LeaseID	USRID	Lease #	Leasee	Lease-Date	Expiration	Term	Lease Status	County	Dist	Vol/Pg	Legal	NRI	NRI Ac
17612	17612		Antero Resources Corporation	9/17/2012	9/17/2017	5 Years	Term	Tyler	McElroy	412/659	5-11-14.1	0.8400	0.560028
18449	18449		Antero Resources Corporation	9/17/2012	9/17/2017	5 Years	Term	Tyler	McElroy	415/688	5-11-14.1	0.8400	0.559994
18450	18450		Antero Resources Corporation	10/17/2012	10/17/2017	5 Years	Term	Tyler	McElroy	417/106	5-11-14.1	0.8400	0.559994
68627	36532		Antero Resources Corporation	1/31/2014	1/31/2019	5 Years	Term	Tyler	McElroy	458/391	5-11-13.1	0.8000	0.07084
68628	36533		Antero Resources Corporation	1/31/2014	1/31/2019	5 Years	Term	Tyler	McElroy	458/391	5-11-13.1	0.8000	0.460443
63430	34819		Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	Tyler	McElroy	457/449	5-11-2	0.8200	2.202662
63451	34821		Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	Tyler	McElroy	457/449	5-11-2	0.8200	0.61125
63452	34821		Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	Tyler	McElroy	457/449	5-11-2	0.8200	2.202662
63453	34822		Antero Resources Corporation	2/12/2014	2/12/2019	5 Years	Term	Tyler	McElroy	457/449	5-11-2	0.8200	2.202662
78932	41238		Antero Resources Corporation	9/26/2014	10/17/2019	5 Years	Term	Ellsworth	Ellsworth	466/708	2-28-39	0.8200	0.279136
61585	34277		Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	Pleasants	Union	298/275	2-25-43	0.8200	0.068634
61586	34278		Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	Pleasants	Union	298/275	2-25-43	0.8500	5.1646
61587	34279		Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	Pleasants	Union	299/71	007-12-28.3.29	0.8500	5.1646
61588	34280		Antero Resources Corporation	2/26/2014	2/26/2019	5 Years	Term	Pleasants	Union	299/71	007-12-28.3.29	0.8500	5.1646
63055	34656		Antero Resources Corporation	2/20/2014	2/20/2019	5 Years	Term	Pleasants	Union	299/73	007-12-28.3.29	0.8500	5.1646
68630	36535		Antero Resources Corporation	6/7/2014	6/7/2019	5 Years	Term	Pleasants	Union	297/499	7-12-29.1, 7-12-28.4	0.8500	10.51025
68932	37098		Antero Resources Corporation	6/26/2014	6/26/2019	5 Years	Term	Pleasants	Union	299/446	007-12-1	0.8400	56.9016
74562	39479		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	299/444	007-12-1.1	0.8400	2.3184
74563	39480		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	301/674	7-11-16, 07-6-106, 106.1	0.8400	168.5807
74564	39481		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/558	007-12.2.2.1.2.2.2.3	0.8200	2.129339
74565	39482		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/563	007-12.2.2.1.2.2.2.3	0.8200	2.129339
74566	39483		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	300/678	007-12.2.2.1.2.2.2.3	0.8200	1.915381
74567	39484		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/489	007-12.2.2.1.2.2.2.3	0.8200	1.915381
74568	39485		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/483	007-12.2.2.1.2.2.2.3	0.8200	1.915381
74569	39486		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/577	007-12.2.2.1.2.2.2.3	0.8200	4.2886
74570	39487		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	306/744	007-12.2.2.1.2.2.2.3	0.8200	4.662385
74571	39488		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/635	007-12.2.2.1.2.2.2.3	0.8200	4.2886
74572	39489		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/540	007-12.2.2.1.2.2.2.3	0.8200	4.2886
74573	39490		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/365	007-12.2.2.1.2.2.2.3	0.8200	4.2886
74574	39491		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/534	007-12.2.2.1.2.2.2.3	0.8200	4.2886
75165	39582		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/542	007-12.2.2.2.3.3	0.8200	2.429931
75166	39683		Antero Resources Corporation	8/8/2014	8/8/2019	5 Years	Term	Pleasants	Union	305/497	007-12.2.2.1.2.2.2.3	0.8200	5.74615
77375	40693		Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	Pleasants	Union	305/501	007-12-2.2.1.2.2.2.3	0.8200	7.195976
78902	41231		Antero Resources Corporation	11/18/2014	11/18/2019	5 Years	Term	Pleasants	Union	305/344	007-7-32.32.3	0.8500	28.475
81332	42131		Antero Resources Corporation	12/19/2015	12/19/2019	5 Years	Term	Pleasants	Union	302/372	7-7-32.7	0.8200	17.67198
81333	42132		Antero Resources Corporation	12/18/2014	12/18/2019	5 Years	Term	Pleasants	Union	302/374	7-7-32.7	0.8200	17.67198
83221	43183		Antero Resources Corporation	12/22/2014	12/22/2019	5 Years	Term	Pleasants	Union	302/386	7-7-32.7-7-32.2	0.8500	7.11875
83405	43237		Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	Pleasants	Union	304/19	7-7-32.7-7-32.2	0.8500	7.11875
83406	43238		Antero Resources Corporation	10/30/2014	10/30/2019	5 Years	Term	Pleasants	Union	305/350	7-7-32.3	0.8500	2.975
84787	44183		Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	Pleasants	Union	304/236	007-6-106.106.1	0.8500	0.48796
84788	44184		Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	Pleasants	Union	304/232	007-6-106.106.1	0.8500	0.48796
84789	44185		Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	Pleasants	Union	303/372	007-6-106.106.1	0.8500	0.48796
84800	44186		Antero Resources Corporation	10/15/2014	10/15/2019	5 Years	Term	Pleasants	Union	306/497	7-7-32.7-7-32.2	0.8500	14.2375
90228	47447		Antero Resources Corporation	12/22/2014	12/22/2019	5 Years	Term	Pleasants	Union	306/497	7-7-32.7-7-32.2	0.8500	14.2375
Total											596.3818	498.9286	

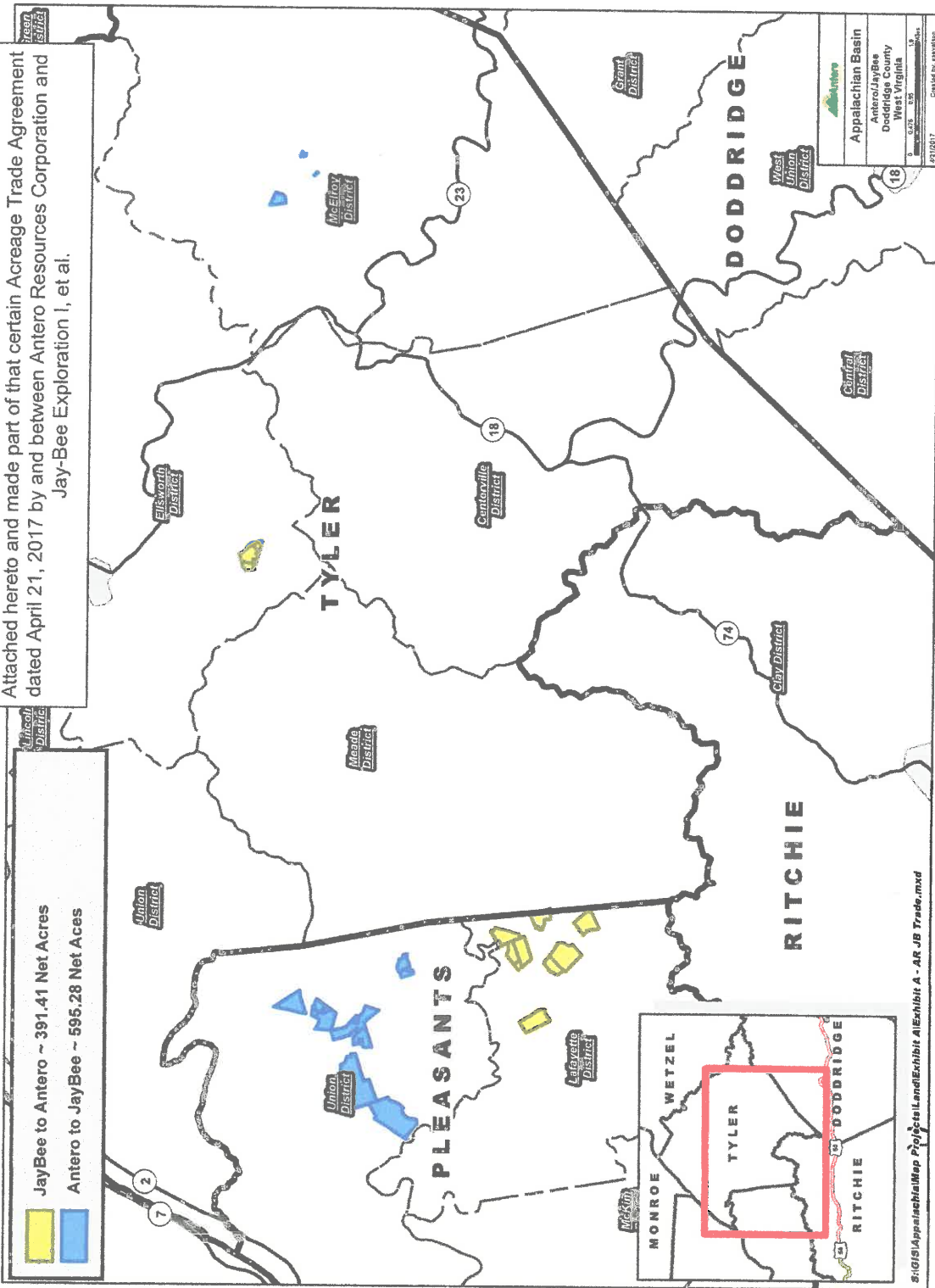
See Exhibit A
See Exhibit A

08/04/2017

Exhibit 'B'
 Attached hereto and made part of that certain Acreage Trade Agreement dated April 21, 2017
 by and between Antero Resources Corporation and Jay-Bee Exploration I, et al,

TRACT ID	Lessor	Lessee	Lease Date	Expiration Date	Lease Term	Lease Gross Acres	Lease NRI Acres	Lease Net Acres	Royalty	Legal	County	District
P4076	CLYDINIA R HIGGINS	BB PRODUCTION	9/5/2014	9/5/2019	5 yrs	60.0000	49.8000	60.0000	0.8300	4-8-2	Pleasants	Lafayette
P4068	JACK O WAUGH, JR	BB PRODUCTION	9/3/2014	9/3/2019	5 yrs	60.0000	12.7500	15.0000	0.8500	4-5-7	Pleasants	Lafayette
P4047	WILLOW RUN ENERGY, LLC	BB PRODUCTION	2/14/2014	2/14/2019	5 yrs	65.2750	13.8709	16.3188	0.8500	4-5-4	Pleasants	Lafayette
P4047	RIDGETOP CAPITAL IV, LP	BB PRODUCTION	2/7/2017	2/7/2022	5 yrs	65.2750	9.7913	12.2391	0.8000	4-5-4	Pleasants	Lafayette
P4048	RIDGETOP CAPITAL IV, LP	BB PRODUCTION	2/7/2017	2/7/2022	5 yrs	30.5125	6.1025	7.6251	0.8000	4-5-5	Pleasants	Lafayette
P4064	EDWARD H., JR & NICOLETTE STAATS	BB PRODUCTION	2/7/2017	2/7/2022	5 yrs	7.3000	1.4600	1.8250	0.8000	4-5-8	Pleasants	Lafayette
P4031	BRENDA SUE DAVIS	BB PRODUCTION	8/22/2014	8/22/2019	5 yrs	40.0000	34.0000	40.0000	0.8500	4-8-3	Pleasants	Lafayette
P4031	CINDY RAY	BB PRODUCTION	8/16/2013	8/16/2018	5 yrs	83.8700	0.8477	0.7488	0.8650	4-8-45	Pleasants	Lafayette
P4031	ROBERT W NICHOLS	BB PRODUCTION	9/10/2013	9/10/2018	5 yrs	83.8700	0.3239	0.3744	0.8650	4-8-45	Pleasants	Lafayette
P4031	VERNICE NEELY	BB PRODUCTION	8/23/2013	8/23/2018	5 yrs	83.8700	0.8477	0.7488	0.8650	4-8-45	Pleasants	Lafayette
P4031	CAROLE S ARBOGAST	BB PRODUCTION	8/28/2013	8/28/2018	5 yrs	83.8700	0.1080	0.1248	0.8650	4-8-45	Pleasants	Lafayette
P4031	LINDA G KOPAC	BB PRODUCTION	9/3/2014	9/3/2019	5 yrs	83.8700	0.1619	0.1872	0.8650	4-8-45	Pleasants	Lafayette
P4031	JOYCE A LISAC	BB PRODUCTION	9/2/2014	9/2/2019	5 yrs	83.8700	0.1619	0.1872	0.8650	4-8-45	Pleasants	Lafayette
P4047	JAY-BEE ROYALTY, LLC	BB PRODUCTION	8/22/2014	8/22/2019	5 yrs	83.8700	0.1619	0.1872	0.8650	4-8-45	Pleasants	Lafayette
P4048	JAY-BEE ROYALTY, LLC	BB PRODUCTION	8/25/2014	8/25/2019	5 yrs	83.8700	0.1619	0.1872	0.8650	4-8-45	Pleasants	Lafayette
P4049	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	65.2750	9.9136	12.2391	0.8100	4-8-4	Pleasants	Lafayette
P4044	BELLA ROSS	BB PRODUCTION	-	-	-	30.5125	6.1788	7.6281	0.8100	4-5-4	Pleasants	Lafayette
P4044	BELLA ROSS	BB PRODUCTION	-	-	-	7.3000	1.4783	1.8250	0.8100	4-5-5	Pleasants	Lafayette
P4044	BELLA ROSS	BB PRODUCTION	-	-	-	68.5000	56.1700	68.5000	0.8203	4-5-6	Pleasants	Lafayette
P4045	CLAYTON E & JANNICE CUNNINGHAM	BB PRODUCTION	-	-	-	9.9920	8.1966	9.9920	0.8203	4-8-24	Pleasants	Lafayette
T6010	JAY-BEE ROYALTY, LLC	BB PRODUCTION	5/29/1984	-	-	105.7500	89.6398	105.7500	0.8477	4-8-8	Pleasants	Lafayette
T6009	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	13.0000	10.5300	13.0000	0.8100	2-26-42	Ellsworth	Tyler
T6009A	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	31.7620	10.7197	13.2342	0.8100	2-26-p043	Ellsworth	Tyler
T6009B	JAY-BEE ROYALTY, LLC	BB PRODUCTION	-	-	-	6.4788	2.1866	2.6995	0.8100	2-26-39	Ellsworth	Tyler
						1.8750	0.6328	0.7813	0.8100	2-26-40	Ellsworth	Tyler
						Total	325.7997	391.4058				

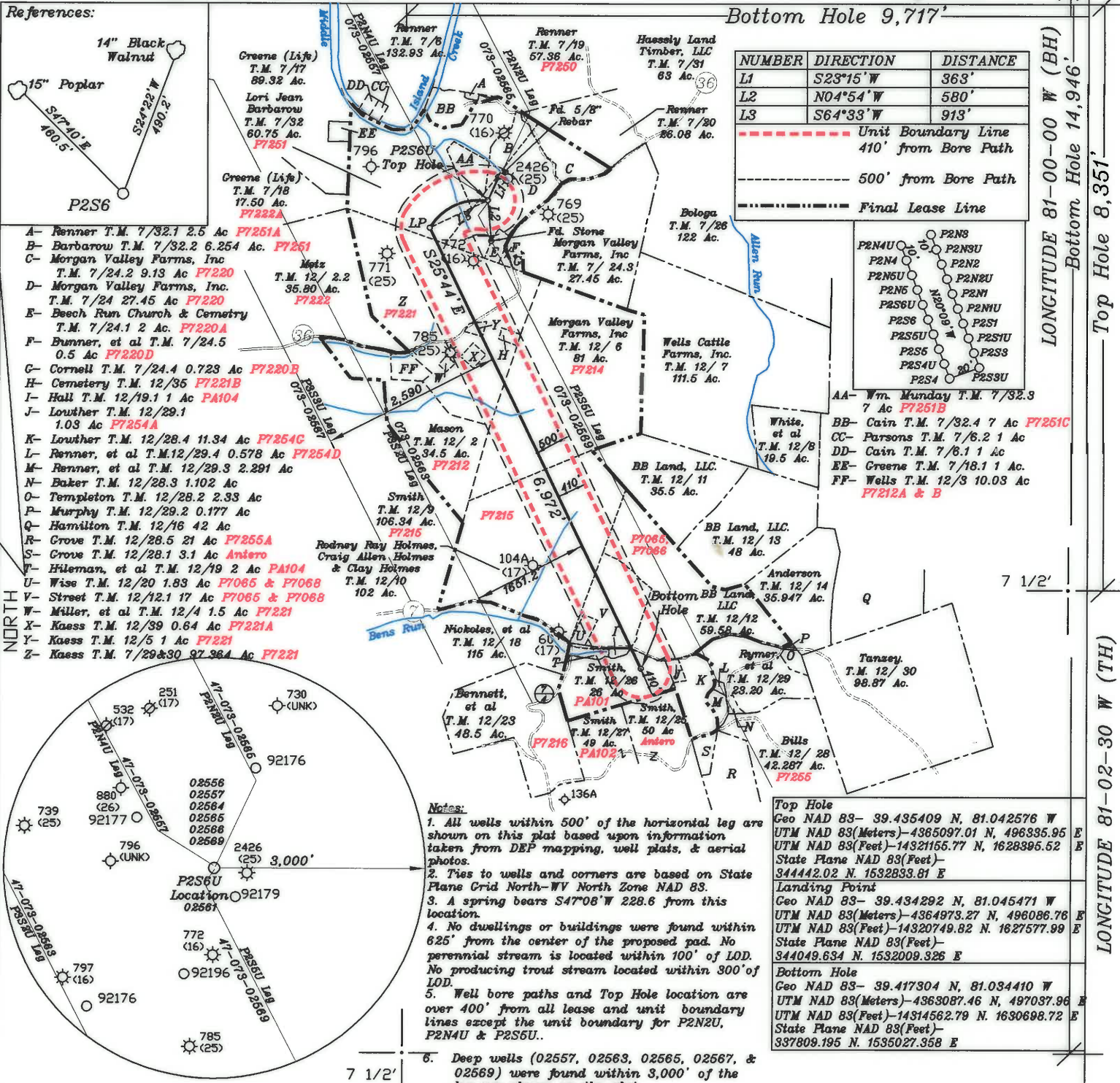
Exhibit C
 Attached hereto and made part of that certain Acreage Trade Agreement dated April 21, 2017 by and between Antero Resources Corporation and Jay-Bee Exploration I, et al.



JayBee to Antero ~ 391.41 Net Acres
 Antero to JayBee ~ 595.28 Net Acres

Appalachian Basin
 Antero/JayBee
 Doddridge County
 West Virginia
 Date: 4/27/17
 User: JTB
 4310817
 Contour by Antero

SIGIS AppalachianMap Projects Land/Exhibit A - AR JB Trade.mxd

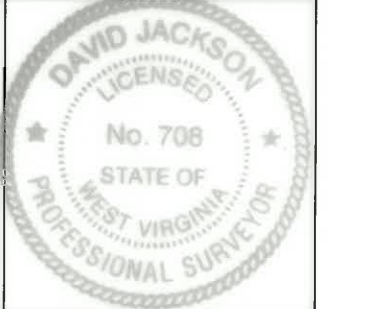


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION GPS
submeter unit

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 PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

(SIGNED) David J. Jackson
 R.P.E. _____ P.S. 708



STATE OF WEST VIRGINIA
 Division of Environmental Protection
 OFFICE OF OIL AND GAS

DATE May 26, 2017
 OPERATOR'S WELL NO. P2S6U
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF 'GAS') PRODUCTION STORAGE DEEP SHALLOW _____
 LOCATION: ELEVATION 712.2' WATER SHED Middle Island Creek
 DISTRICT Union COUNTY Pleasants
 QUADRANGLE Bens Run 7 1/2'

SURFACE OWNER Morgan Valley Farms, Inc. ACREAGE 27.451 Ac.
 OIL & GAS ROYALTY OWNER Morgan Valley Farms, Inc. LEASE ACREAGE 082042047
 LEASE NO. P7220

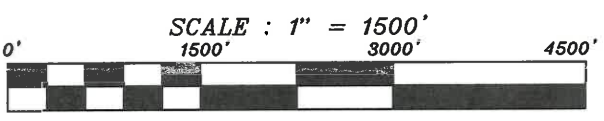
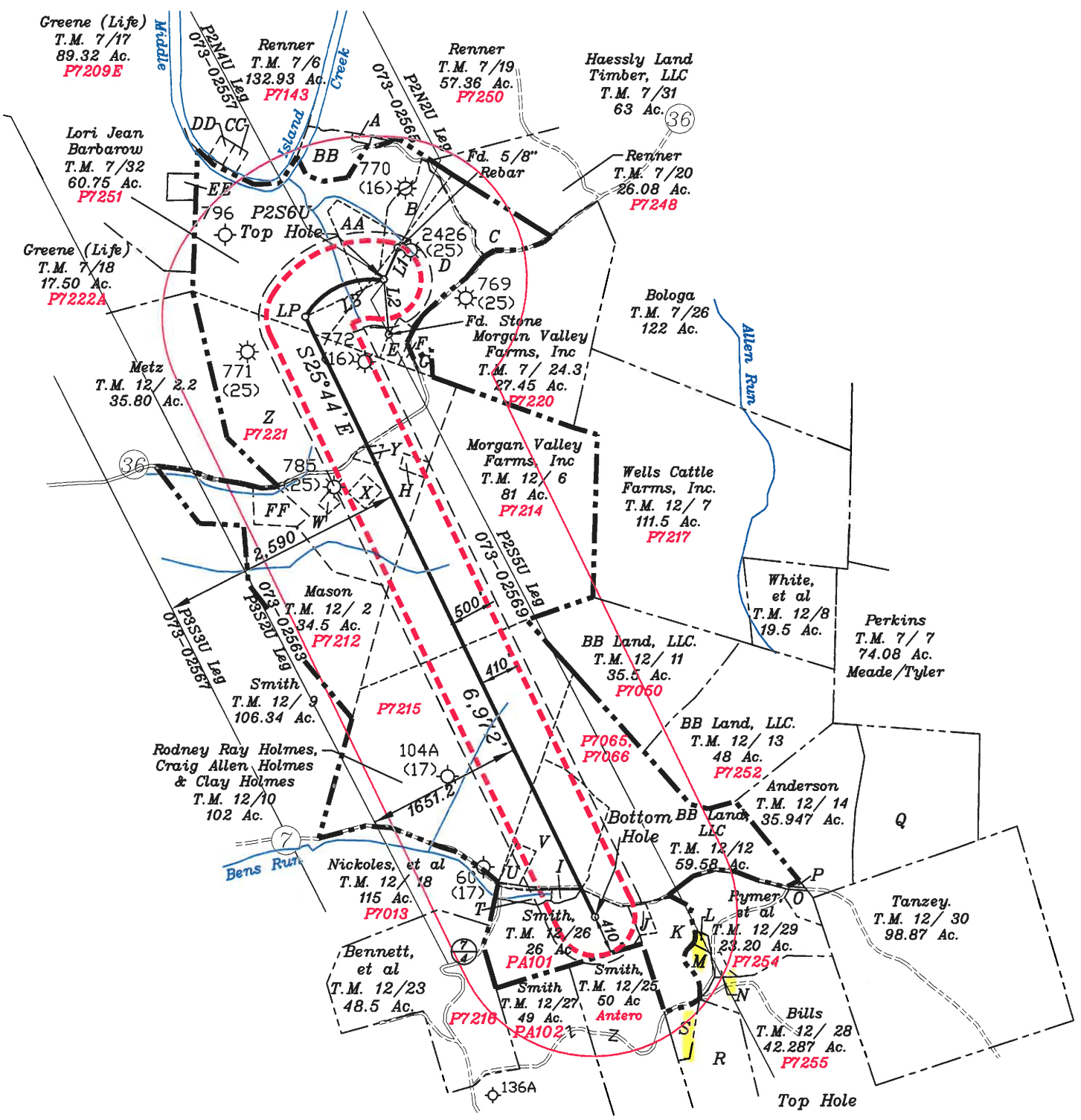
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Point Pleasant ESTIMATED DEPTH TVD = 10,590'; TMD = 18,435'
 WELL OPERATOR Jay-Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda
 ADDRESS 1720 Route 22 E, Union, NJ 07083 ADDRESS 3570 Shields Hill Rd., Cairo, WV 26337

EXHIBIT MAP FOR JAY BEE

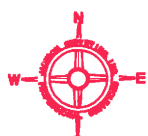
WELL NO. P2S6U
Union District, Pleasants County
May 26, 2017

- A- Renner T.M. 7/32.1 2.5 Ac P7251A
- B- Barbarow T.M. 7/32.2 6.254 Ac. P7251
- C- Morgan Valley Farms, Inc. T.M. 7/24.2 9.13 Ac P7220
- D- Morgan Valley Farms, Inc.
T.M. 7/24 27.45 Ac P7220
- E- Beech Run Church & Cemetery
T.M. 7/24.1 2 Ac. P7220A
- F- Bunner, et al T.M. 7/24.5 0.5 Ac P7220D
- G- Cornell T.M. 7/24.4 0.723 Ac P7220B
- H- Cemetery T.M. 12/35 P7221B
- I- Hall T.M. 12/19.1 1 Ac PA104
- J- Lowther T.M. 12/29.1 1.03 Ac P7254A
- K- Lowther T.M. 12/28.4 11.34 Ac P7254G
- L- Renner et al T.M. 12/29.4 0.578 Ac P7254D



LEGEND	
	1500' BOREPATH OFFSET
	UNIT BOUNDARY 410' FROM WELL BORE PATH, TH & BH
	FINAL LEASE LINE
	INTERIOR TRACT LINE
	ADJOINER LINE
	ROAD LINE
	STREAM LINE

Jackson Surveying Inc.
677 W. Main Street
Clarksburg, WV 26301
(304) 623-5851



- M- Renner, et al T.M. 12/29.3 2.291 Ac P7254G
- N- Baker T.M. 12/28.3 1.102 Ac P7254F
- O- Templeton T.M. 12/28.2 2.33 Ac
- P- Murphy T.M. 12/29.2 0.177 Ac
- Q- Hamilton T.M. 12/16 42 Ac
- R- Grove T.M. 12/28.5 21 Ac P7255A
- S- Grove T.M. 12/28.1 3.1 Ac Antero
- T- Hileman, et al T.M. 12/19 2 Ac PA08/04/2017
- U- Wise T.M. 12/20 1.83 Ac P7065 & P7068
- V- Street T.M. 12/12.1 17 Ac P7065 & P7068
- W- Miller, et al T.M. 12/4 1.5 Ac
- X- Kaess T.M. 12/39 0.64 Ac P7221A
- Y- Kaess T.M. 12/5 1 Ac P7221
- Z- Kaess T.M. 7/29&30 97.364 Ac P7221
- AA- Wm. Munday T.M. 7/ 32.3 7 Ac P7251B
- BB- Cain T.M. 7/ 32.4 7 Ac P7251C
- CC- Parsons T.M. 7/6.2 1 Ac
- DD- Cain T.M. 7/6.1 1 Ac
- EE- Greene T.M. 7/18.1 1 Ac
- FF- Wells T.M. 12/3 10.03 Ac P7212A & B



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street, SE Charleston, WV 25304
(304)926-0499, Ext 1656

Jim Justice, Governor
Barry K. Lay, Chairman
dep.wv.gov

June 30, 2017

Siltstone Resources II, LLC
600 Jefferson Street
Houston, TX 77002

RE: Intentional Deviation of New Deep Well
Jay-Bee Oil and Gas Inc.
47-073-02561 #P2S6U

Dear Sir:

Please be advised that Jay-Bee Oil and Gas, Inc. has applied to the Oil and Gas Conservation Commission for approval to intentionally deviate a new deep well. The Code of State Regulations Title 39 Section 1.4.10 requires that the Commission notify the offset operators of the applicants' intent to deviate the proposed well. You are receiving this notice because you are listed as an offset operator (unleased mineral owner is also an "offset operator") to the proposed well. Any offset operator has ten days to object to the Commission's granting approval to the proposed deviation. If you file an objection, the Commission will schedule a hearing and you will be notified of the date and time to attend.

A copy of the location plat is enclosed for your review. If no objection(s) are received by **July 11, 2017** the application will be processed in the normal manner.

If you have any questions please call me at (304) 926-0499, extension 1656.

Sincerely,

Cindy Raines
Administrator

encl: as stated

Promoting a healthy environment

08/04/2017

VOID

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Jay-Bee Oil & Gas, Inc. 24610 Pleasants Union Ben's Run 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: P2S6U Well Pad Name: P2

3) Farm Name/Surface Owner: Morgan Valley Farms Public Road Access: Beech Run Rd / CR 36

4) Elevation, current ground: 722.5 Elevation, proposed post-construction: 712.2

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow _____ Deep
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Utica: 10,590' Depth, 256' Thickness, 8000 psi, Trenton: 10,875' Depth Thickness, 180' Thickness, 8000 psi

8) Proposed Total Vertical Depth: 10,875' TVD, 10,590' TVD (Horizontal section)

9) Formation at Total Vertical Depth: Trenton (TVD) Utica (Horizontal)

10) Proposed Total Measured Depth: 18,435'

11) Proposed Horizontal Leg Length: 6,972

12) Approximate Fresh Water Strata Depths: 110'

13) Method to Determine Fresh Water Depths: Middle Island Creek

14) Approximate Saltwater Depths: 955'

15) Approximate Coal Seam Depths: N/A

16) Approximate Depth to Possible Void (coal mine, karst, other): N/A

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

RECEIVED
Office of Oil and Gas
JUN 29 2017
WV Department of
Environmental Protection

[Handwritten signature]