

06/07/2019



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, June 5, 2019
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359
SPRING, TX 77391-4954

Re: Permit Modification Approval for KATHY MAYHEW BRK 201H
47-009-00208-00-00

Extend Lateral from 7042.36' to 15944.23'. Leases updated.

SWN PRODUCTION COMPANY, LLC

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.

A handwritten signature in blue ink, appearing to read "James A. Martin".

James A. Martin
Chief

Operator's Well Number: KATHY MAYHEW BRK 201H
Farm Name: MAYHEW, KATHY LYNN & MICHAEL, ETAL
U.S. WELL NUMBER: 47-009-00208-00-00
Horizontal 6A New Drill
Date Modification Issued: 06/05/2019

Promoting a healthy environment.

WW-5B
(10/14)

API NO. 47- 51 -
OPERATOR WELL NO. Kathy Mayhew BRK 201H
Well Pad Name: Kathy Mayhew PAD

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

1) Well Operator: SWN Production Co., LLC 49447757 009-Brooke 1- Buffalo 247-Bethany/641
Operator ID County District Quadrangle

2) Operator's Well Number: Kathy Mayhew BRK 201H Well Pad Name: Kathy Mayhew PAD

3) Farm Name/Surface Owner: Kathy Lynn & Michael. ETAL Public Road Access: Apple Pie Ridge Road

4) Elevation, current ground: 1281' Elevation, proposed post-construction: 1281'

5) Well Type (a) Gas Oil Underground Storage
Other
(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Associated Pressure(s):
Target Formation- Marcellus, Up-Dip Well to the North, Target Top TVD- 5957', LP Target Base TVD- 6012', Anticipated Thickness- 55', Associated Pressure- 3300

8) Proposed Total Vertical Depth: 6000'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,522'

11) Proposed Horizontal Leg Length: 15944.23'

12) Approximate Fresh Water Strata Depths: 371'

13) Method to Determine Fresh Water Depths: Nearby water well

14) Approximate Saltwater Depths: 623' Salinity Profile

15) Approximate Coal Seam Depths: 454'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 454'

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: _____

Handwritten signature and date: 4-23-19

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WW-6B
(10/14)

API NO. 47- 51
OPERATOR WELL NO. Kathy Mayhew BRK 201H
Well Pad Name: Kathy Mayhew PAD

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	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	528'	528'	504 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1798'	1798'	690 sx/CTS
Production	5 1/2"	New	HCP-110	20#	22,522'	22,522'	Lead 734xx tail 3870x120' inside int
Tubing							
Liners							

Handwritten signature and date: 4-23-19

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Max. Associated Surface Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/15% Excess
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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Environmental Protection
Page 2 of 3

WW-6B
(10/14)

API NO. 47- 51
OPERATOR WELL NO. Kathy Mayhew BRK 201H
Well Pad Name: Kathy Mayhew PAD

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

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface. Run casing not less than 20' below void nor more than 50' below void. (*if freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

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

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 8.20

22) Area to be disturbed for well pad only, less access road (acres): 5.96

23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.

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

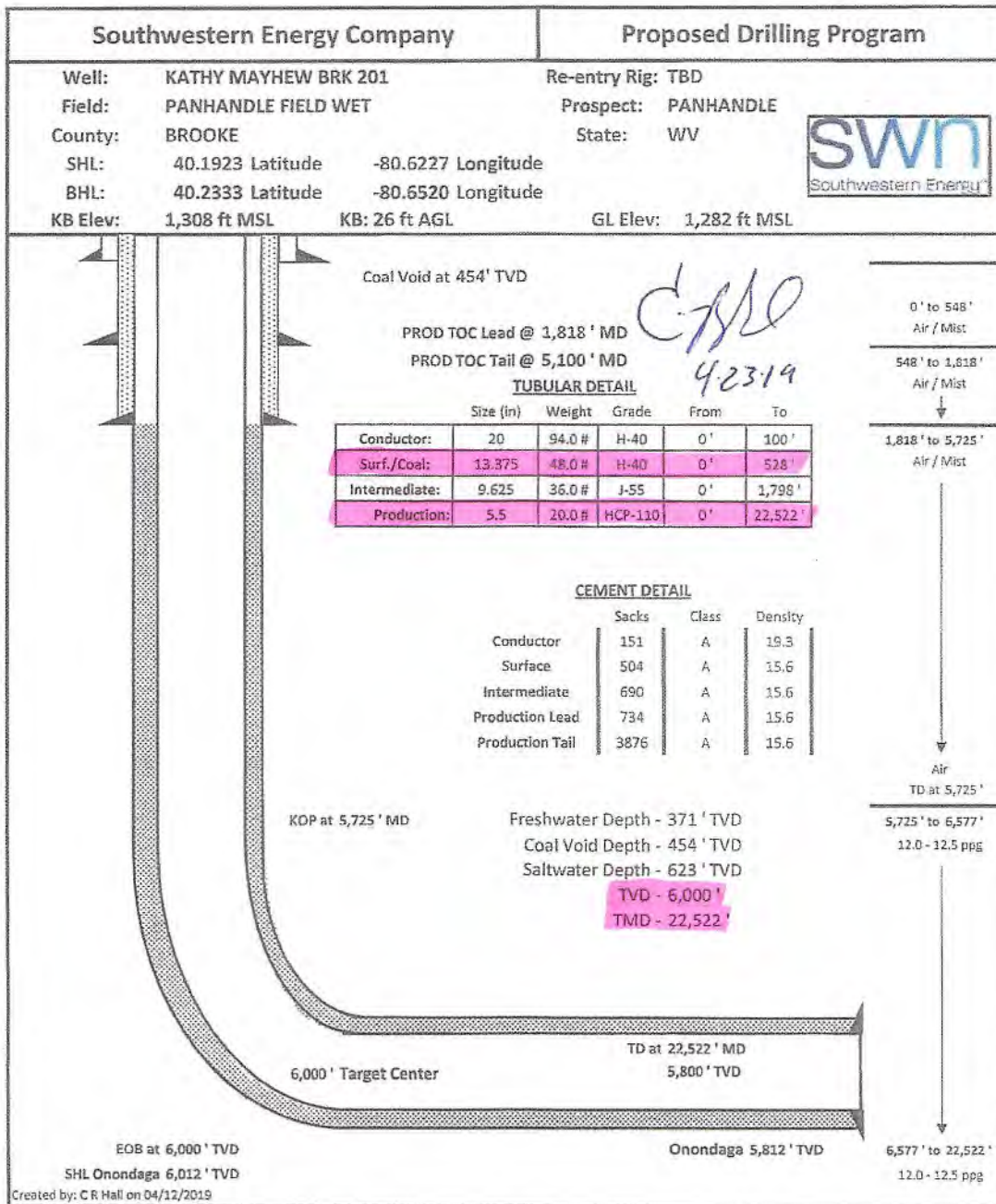
See Attachment ***

25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

*Note: Attach additional sheets as needed.

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Kathy Mayhew
BRK 201H

Operator's Well No. _____

WW-6A1
(5/13)

**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
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See Exhibit A

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

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

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: SWN Production Co., LLC

By: Bailey Broughter Bailey Broughter

Its: Landman

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EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, LLC., Operator
 Kathy Mayhew BRK 201H
 Brooke County, West Virginia

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG
1)	03-0B42-0027-0000-0000	James Mayhew and Kathy Lynn Mayhew	Chesapeake Appalachia, L.L.C.	12.50%	10/439
		Andrew George Romanyak and Sara E. Romanyak	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	12.50%	30/480 10/441
		Jeff K. VanCamp and Regina Marie VanCamp	SWN Production Company, LLC Chesapeake Appalachia, L.L.C.	12.50%	30/480 10/438
2)	03-0B41-0080-0000-0000	Jay G. Collins and Barbara J. Collins	SWN Production Company, LLC Fortuna Energy Inc.	12.50%	30/480 9/864
			Range Resources – Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC		10/159 10/552 30/480
3)	03-0B41-0080-0002-0000	Jay G. Collins and Barbara J. Collins	Fortuna Energy Inc.	12.50%	9/864
			Range Resources – Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC		10/159 10/552 30/480
4)	03-0B41-0071-0000-0000	Sandra W. Butler	Chesapeake Appalachia, L.L.C.	18.00%	17/523
		William Miller and Dawna Miller	SWN Production Company, LLC		30/480
5)	03-0B41-0061-0000-0000	William Miller and Dawna Miller	Chesapeake Appalachia, L.L.C.	17.00%	27/280
		Sandra Winona Butler	SWN Production Company, LLC		30/480
6)	03-0B41-0068-0000-0000	Sandra Winona Butler	SWN Production Company, LLC	14.00%	33/252
7)	03-0B41-0067-0000-0000	Robert Lee Huffman and Delma Lou Huffman	SWN Production Company, LLC	14.00%	33/161
8)	03-0B41-0065-0000-0000	Carl Spencer and Judith Spencer	SWN Production Company, LLC	14.00%	33/267
9)	03-0B41-0064-0000-0000	Ernest F. Capp & Joann P Capp	Great Lakes Energy Partners, L.L.C. Range Resources – Appalachia, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	10/103 20/733 10/552 30/480
10)	03-0B36-0107-0000-0000	Gail Phillips Atkinson	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	19/186 30/480

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 Kathy Mayhew BRK 201H
 Brooke County, West Virginia

George W. Grimm	Chesapeake Appalachia, L.L.C.	18.00%	19/174
Mark Phillips	SWN Production Company, LLC	18.00%	30/480
Alfred Scheil	Chesapeake Appalachia, L.L.C.	18.00%	19/180
	SWN Production Company, LLC	18.00%	30/480
	Chesapeake Appalachia, L.L.C.	18.00%	18/329
	SWN Production Company, LLC	18.00%	30/480
11) 03-B36-0104-0000-0000	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	21.00%	947/657
12) 03-B36L-0036-0000-0000	SWN Production Company, LLC	18.00%	47/677
13) 03-B36L-0032-0000-0000	Chesapeake Appalachia, L.L.C.	18.00%	11/215
14) 03-B36L-0025-0000-0000	SWN Production Company, LLC	21.00%	30/480
15) 03-B36L-0026-0000-0000	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	21.00%	947/657
16) 03-B36L-0009-0000-0000	SWN Production Company, LLC and Equinor USA Onshore Properties Inc.	18.00%	48/39
17) 03-B36L-0006-0000-0000	SWN Production Company, LLC	18.00%	47/337
18) 03-B36L-0007-0000-0000	SWN Production Company, LLC	18.00%	47/337
19) 03-B36G-0001-0000-0000	Mountaineer Natural Gas Company	15.00%	10/266
	Chesapeake Appalachia, L.L.C.		24/659
20) 03-BB36-0023-0000-0000	SWN Production Company, LLC	18.00%	30/480
	SWN Production Company, LLC	18.00%	47/473
	SWN Production Company, LLC	18.00%	48/134
21) 01-B36B-0017-0000-0000	SWN Production Company, LLC	18.00%	47/312
	SWN Production Company, LLC	18.00%	47/270
	SWN Production Company, LLC	18.00%	47/276
	SWN Production Company, LLC	18.00%	49/488
	SWN Production Company, LLC	18.00%	49/494
	SWN Production Company, LLC	18.00%	49/491
	SWN Production Company, LLC	18.00%	49/421

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 Kathy Mayhew BRK 201H
 Brooke County, West Virginia

22)	01-B36B-0121-0000-0000	The Most Reverend Michael J. Bransfield, Bishop of the Roman Catholic Diocese of Wheeling-Charleston	SWN Production Company, LLC	18.00%	48/81
23)	01-B36B-0124-0000-0000	SWN Production Company, LLC and Eguinor USA Onshore Inc.	Company Owned Minerals	12.50%	387/427 (Deed)
24)	01-B36B-0123-0000-0000	Emases Properties LLC	SWN Production Company, LLC	18.00%	50/36
25)	01-BB31-0009-0000-0000	Emases Properties LLC	SWN Production Company, LLC	18.00%	50/36
26)	01-BB31-0013-0000-0000	Edward A. Conery	SWN Production Company, LLC	18.00%	46/239
27)	01-BB31-0012-0000-0000	Gary Lee Bennett and Wendy Faith Bennett	SWN Production Company, LLC	18.00%	49/85
28)	01-BB31-0011-0000-0000	Gary Lee Bennett and Wendy Faith Bennett	SWN Production Company, LLC	18.00%	45/576
29)	01-BB31-0019-0000-0000	Otis M. Baker, Jr. and Edna Jo Baker	SWN Production Company, LLC	18.00%	45/561
30)	01-BB31-0022-0000-0000	William E. Malson and Susan A. Malson	SWN Production Company, LLC	18.00%	46/302
31)	01-BB31-0023-0000-0000	William E. Malson and Susan A. Malson	SWN Production Company, LLC	18.00%	46/302
32)	01-BB31-0026-0000-0000	Donald E. Corey II	SWN Production Company, LLC	18.00%	47/355
33)	01-BB31-0043-0000-0000	Carl J. Falcon Craig A. Falcon Leon W. Falcon	SWN Production Company, LLC SWN Production Company, LLC SWN Production Company, LLC	18.00% 18.00% 18.00%	46/401 46/391 46/396

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SWN Production Company, LLC
1300 Fort Pierpont Dr, Ste 201
Morgantown, WV 26508
Tel: 304 884 1810
Fax: 304 471 2497
www.swn.com

April 9, 2019

Ms. Laura Adkins
WV DEP Office of Oil & Gas
601 57th St., SE
Charleston, WV 25304

RE: SWN's proposed New Well: Kathy Mayhew BRK 201H Brooke County, West Virginia, Drilling under Chapel Hill Church Road, Windy Hill Road, Apple Pie Ridge Road, Hukill Run Road, Beech Bottom Hill Road.

Dear Ms. Adkins:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Chapel Hill Church Road, Windy Hill Road, Apple Pie Ridge Road, Hukill Run Road, Beech Bottom Hill Road. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

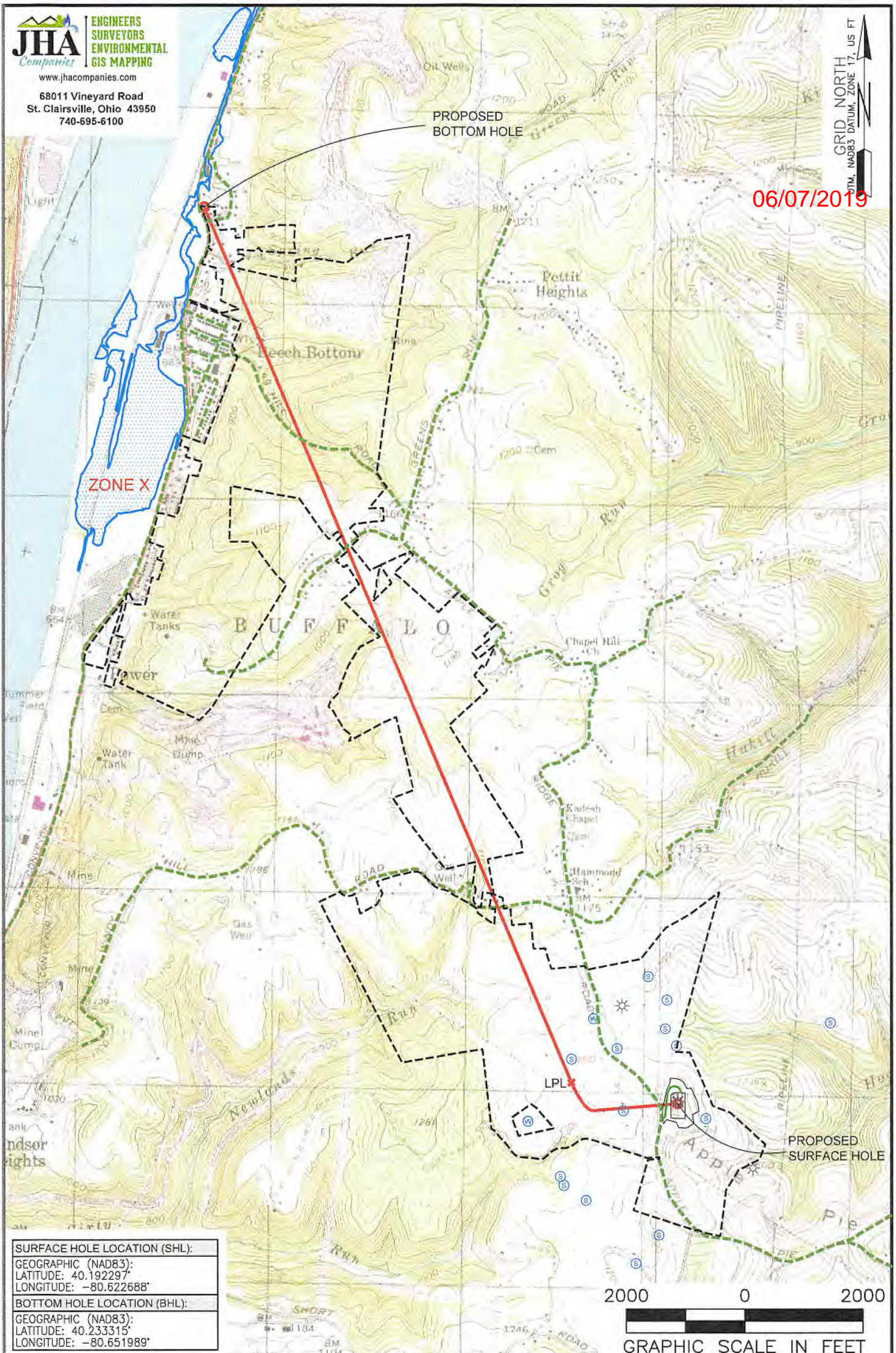
Bailey Brougher, RL
Landman – SW Appalachia


Southwestern Energy[®]
10000 Energy Drive
Spring TX, 77389

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The Right People doing the Right Things,
wisely Investing the cash flow from our
underlying Assets, will create Value+[®]

06/07/2019



SURFACE HOLE LOCATION (SHL):
GEOGRAPHIC (NAD83):
LATITUDE: 40.192297°
LONGITUDE: -80.622688°
BOTTOM HOLE LOCATION (BHL):
GEOGRAPHIC (NAD83):
LATITUDE: 40.233315°
LONGITUDE: -80.651989°

NOTES ON SURVEY

1. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- EXISTING / PRODUCING WELLHEAD
- LPL* LANDING POINT LOCATION
- FLOOD PLAIN
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- LEASE BOUNDARY
- PROPOSED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: KATHY MAYHEW BRK	WELL # 201H	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	COUNTY - CODE: BROOKE - 009	DISTRICT: BUFFALO	API NO: 47-009-00208
SURFACE OWNER: KATHY LYNN & JAMES MAYHEW, ET AL	USGS 7 1/2 QUADRANGLE MAP NAME: BETHANY, WV & TILTONSVILLE, OH		

LATITUDE: 40°15'00" BOTTOM HOLE (2000' SCALE)

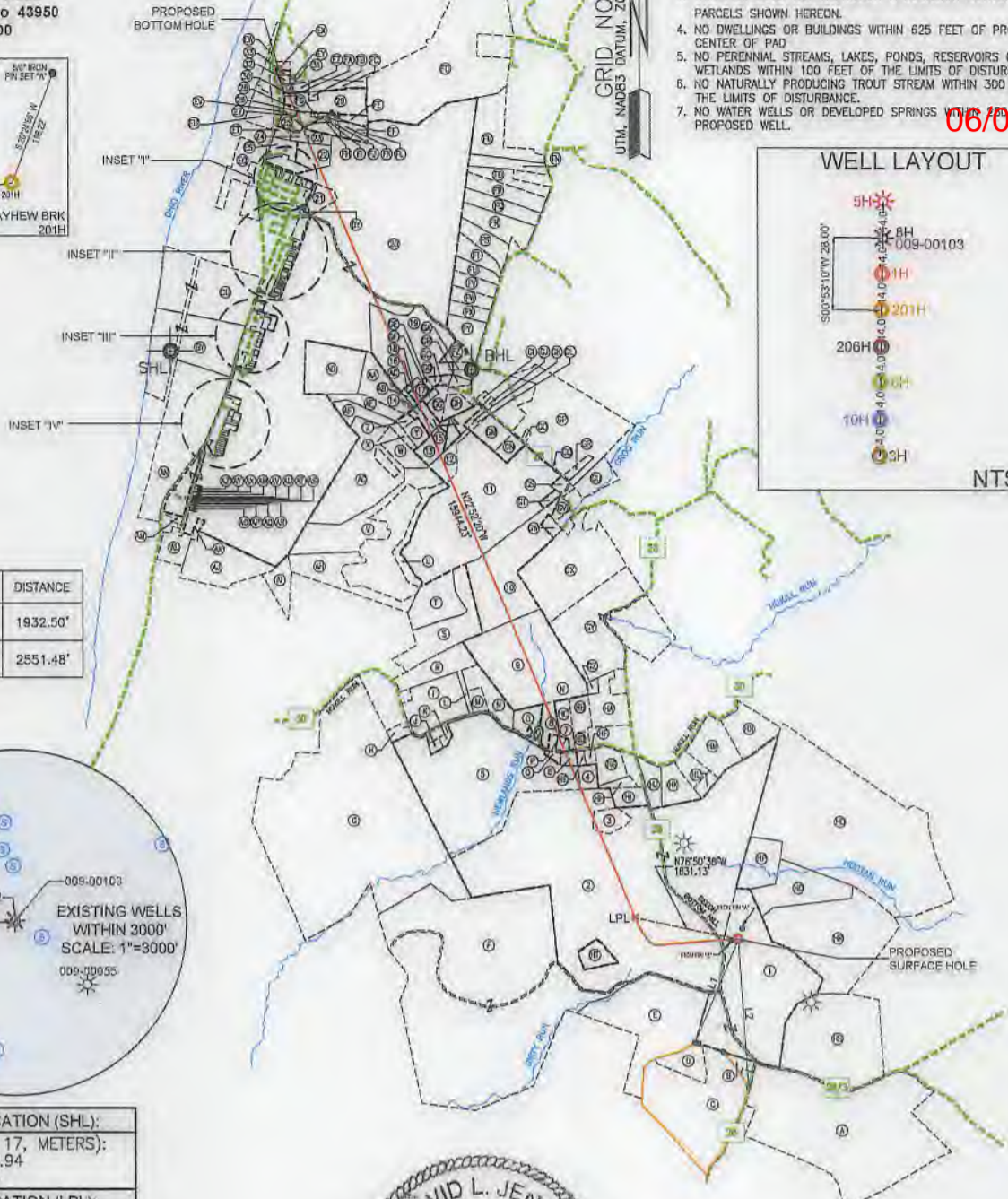
7541'

LATITUDE: 40°12'30" SURFACE HOLE (2000' SCALE)

11052'



68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100



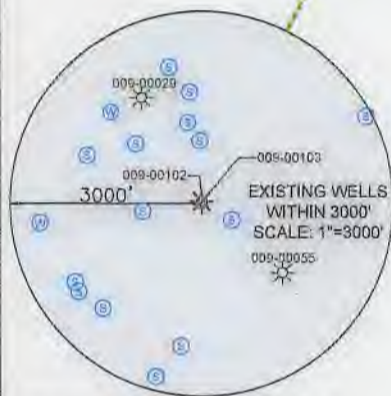
NOTES ON SURVEY

1. COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
3. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
4. NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD
5. NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
6. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF THE LIMITS OF DISTURBANCE.
7. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 200 FEET OF PROPOSED WELL.

06/07/2019



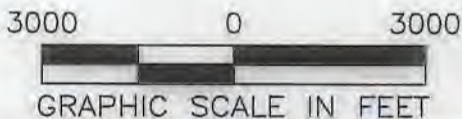
LINE	BEARING	DISTANCE
L1	N22°45'59"E	1932.50'
L2	N03°58'06"W	2551.48'



SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4449168.94 EASTING: 532116.75
LANDING POINT LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4449267.71 EASTING: 531567.65
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4453711.46 EASTING: 529604.77

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 2275

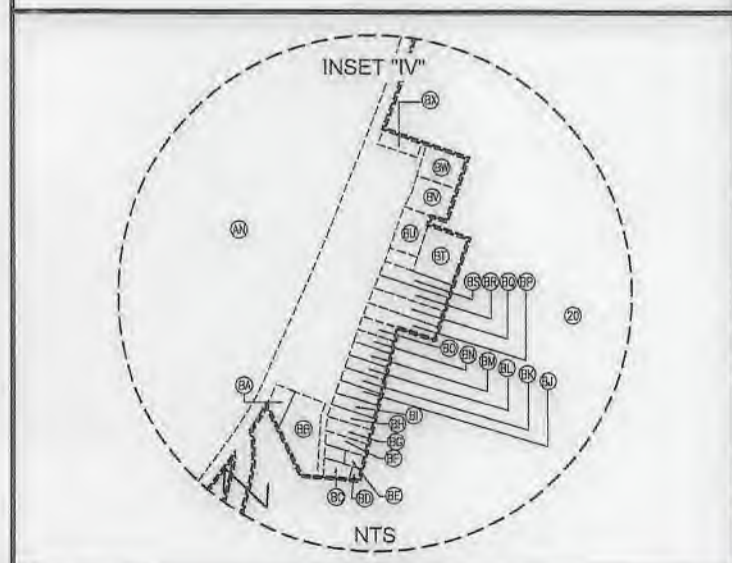
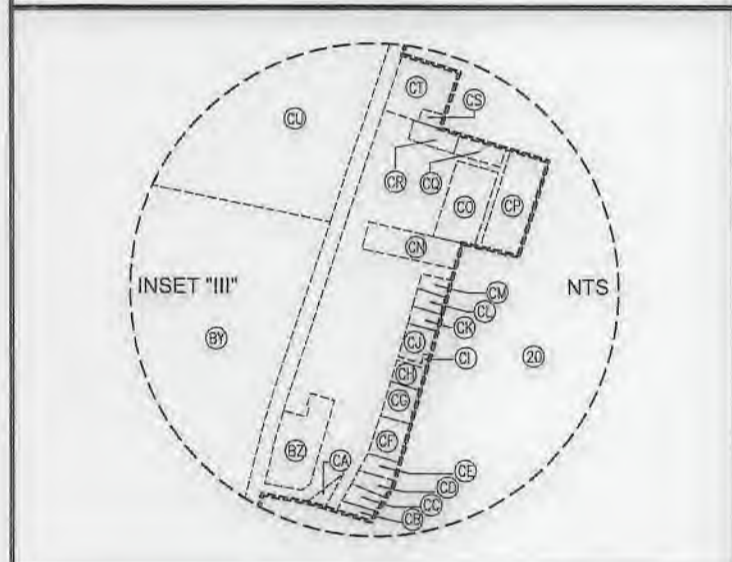
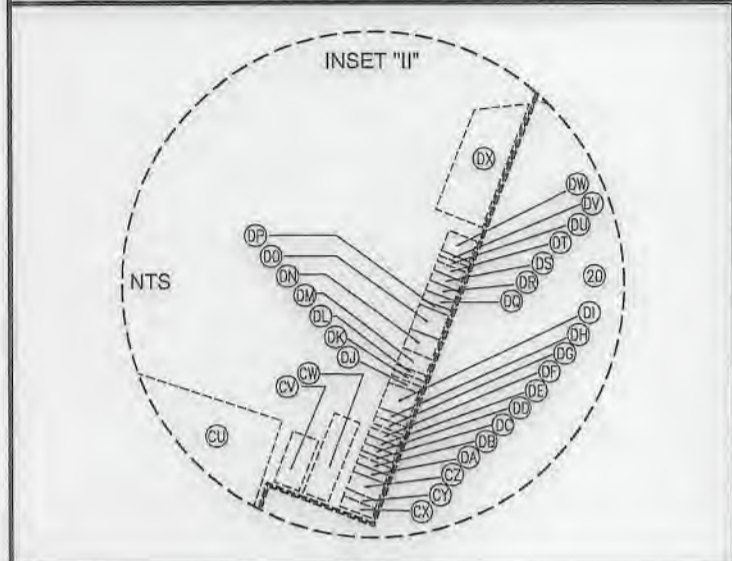
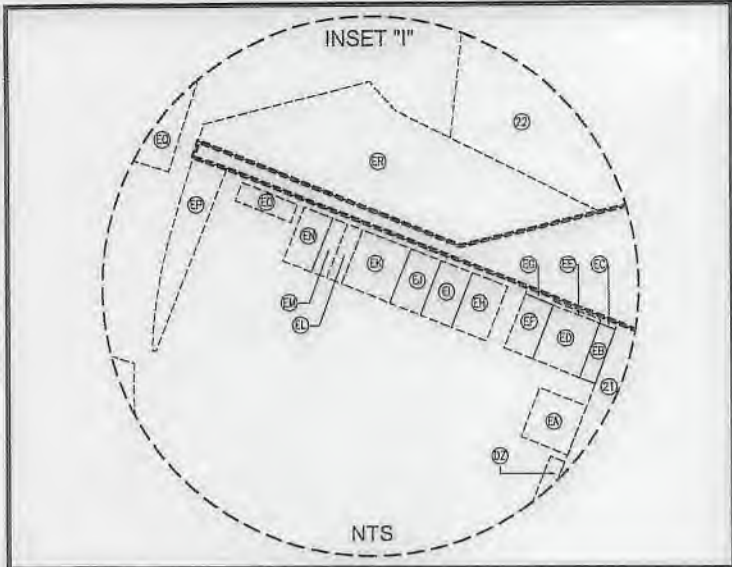


	(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS	MINIMUM DEGREE OF ACCURACY: 1/200	KATHY MAYHEW BRK		
	WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	PROVEN SURVEY SOURCE OF ELEVATION: SURVEY GRADE GPS (NAVD 88, US FT)	OPERATOR'S WELL #:	201H	
			API WELL #:	47	009 00208
			STATE	COUNTY	PERMIT

WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>	WATERSHED: UPPER OHIO SOUTH	ELEVATION: 1,281.2'
DISTRICT: BUFFALO	COUNTY: BROOKE	QUADRANGLE: BETHANY, WV & TILTONSVILLE, OH
SURFACE OWNER: KATHY LYNN & JAMES MAYHEW, ET AL	ACREAGE: ±84.74	
OIL & GAS ROYALTY OWNER: KATHY LYNN & JAMES MAYHEW, ET AL	ACREAGE: ±84.74	
DRILL <input checked="" type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input checked="" type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/>	CONVERT <input type="checkbox"/> PLUG & ABANDON <input type="checkbox"/> CLEAN OUT & REPLUG <input type="checkbox"/> OTHER CHANGE <input type="checkbox"/> (SPECIFY)	
TARGET FORMATION: MARCELLUS	ESTIMATED DEPTH: 6,000' TVD 22,522' TMD	

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201	ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508	CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

LEGEND:	REVISIONS:	DATE: 04-26-2019
		API NO: 47-009-00208
		DRAWN BY: D. REED
		SCALE: 1" = 3000'
		DRAWING NO: 2018-341
		WELL LOCATION PLAT



WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	KATHY LYNN & JAMES MAYHEW, ET AL (S/R)	03-B42-0027.0000
2	JAY GLEN COLLINS	03-B41-0080.0000
3	JOSEPH P., SR. & ROBIN M. SCRIP	03-B41-0080.0002
4	SANDRA W. BUTLER	03-B41-0071.0000
5	WILLIAM & DAWNA MILLER	03-B41-0061.0000
6	SANDRA BUTLER	03-B41-0068.0000
7	ROBERT LEE & DELMA LOU HUFFMAN	03-B41-0067.0000
8	CARL & JUDITH SPENCER	03-B41-0065.0000
9	ERNEST F. & JOANNE CAPP	03-B41-0054.0000
10	MARK PHILLIPS, GAIL ATKINSON & ET AL	03-B36-0104.0000
11	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0036.0000
12	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0032.0000
13	FLOYD R. & DORIS M. LOUGHRIE	03-B36L-0025.0000
14	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0026.0000
15	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0009.0000
16	LESTER & KATHERINE WALLACE	03-B36L-0006.0000
17	NICHOLAS S. MINDA (L/E: NORA J. MINDA)	03-B36L-0007.0000
18	NICHOLAS S. MINDA (L/E: NORA J. MINDA)	03-B36L-0001.0000
19	LESTER & KATHERINE WALLACE	01-BB36-0023.0001
20	BUSINESS DEVELOPMENT CORP OF THE NORTHERN PANHANDLE	01-B36B-0017.0000
21	THE VILLAGE OF BEECH BOTTOM	01-B36B-0121.0000
22	HEALTHWAYS, INC.	01-B36B-0124.0000
23	LARRY WILLIAM COUCH (L/E: JEAN COUCH)	01-B36B-0123.0000
24	EMASES PROPERTIES, LLC	01-BB31-0009.0000
25	EMASES PROPERTIES, LLC	01-BB31-0013.0000
26	EDWARD A. CONERY	01-BB31-0012.0000
27	SYLVIA C. BENNETT	01-BB31-0011.0000
28	GARY LEE & WENDY FAITH BENNETT	01-BB31-0019.0000
29	OTIS M., JR. & EDNA JO BAKER	01-BB31-0022.0000
30	WILLIAM E. & SUSAN A. WALSON	01-BB31-0023.0000
31	WILLIAM E. & SUSAN A. WALSON	01-BB31-0026.0000
32	DONALD E. COREY, II	01-BB31-0043.0000
33	LEON W. FALCON, CRAIG A. FALCON & CARL J. FALCON	



ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	JOSEPH S. & JANE M. BUREK	03-B47-0019.0000
B	JAMES LAMONT	03-B47-0001.0000
C	BETSY D. TUSTIN	03-B47-0002.0001
D	DALE T. & MARY R. WOOD	03-B46-0046.0000
E	MARY WOOD	03-B41-0084.0000
F	BARRY L. & PATRICIA A. GREATHOUSE	03-B41-0082.0000
G	ROBERT J. MILLER, JR. & ET AL	03-B41-0047.0000
H	KARL DOUGLAS STEPHENS	03-B41-0054.0002
I	WILLIAM & DAWNA MILLER	03-B41-0061.0002
J	KEVIN S. WEEKLEY	03-B41-0056.0000
K	MICHAEL PAUL ALLEN	03-B41-0061.0003
L	ERNEST & JOANN PAULINE CAPP	03-B41-0061.0001
M	ERNEST W. & MARIANNE CAPP	03-B41-0082.0000
N	ERNEST & JOANN P. CAPP	03-B41-0063.0000
O	EMILY J. HUFFNER	03-B41-0065.0001
P	CARL E. & JUDITH SPENCER	03-B41-0066.0000
Q	SANDRA BUTLER	03-B41-0061.0004
R	ERNEST & JOANN PAULINE CAPP	03-B41-0053.0000
S	ERNEST F. & JOANNE CAPP	03-B41-0052.0000
T	WINDSOR POWER HOUSE COAL COMPANY	03-B41-0049.0000
U	WINDSOR POWER HOUSE COAL COMPANY	03-B36-0103.0000
V	WINDSOR POWER HOUSE COAL COMPANY	03-B36-0101.0000
W	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0021.0000
X	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0022.0000
Y	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0023.0000
Z	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0024.0000
AA	TAMMY R. & RANDOLPH L. CLARK	03-B36L-0011.0000
AB	BARBARA J. SWIGER	03-B36L-0010.0000
AC	LESTER & KATHERINE WALLACE	03-B36L-0008.0000
AD	JEFFREY M. & KRISTINA L. BARR	03-B36L-0011.0001
AE	AMANDA HUFF	03-B36L-0017.0000
AF	CONNIE WAGNER	03-B36L-0015.0000
AG	BRIAN D. & CASEY K. RICHARDSON	03-B36L-0021.0001
AH	WINDSOR POWER HOUSE COAL COMPANY	03-B36-0102.0000
AI	WINDSOR POWER HOUSE COAL COMPANY	03-B36-0100.0000
AJ	WINDSOR POWER HOUSE COAL COMPANY	03-B36-0091.0000
AK	WINDSOR POWER HOUSE COAL COMPANY	01-BB36-0022.0000
AL	WINDSOR POWER HOUSE COAL COMPANY	01-BB36-0025.0000
AM	RALPH & MARY ANN PLANTS	01-BB36-0004.0000
AN	BUSINESS DEVELOPMENT CORP OF THE NORTHERN PANHANDLE	01-BB36-0001.0000
AO	PAUL & GENEVIEVE CUNNINGHAM	01-BB36-0017.0000
AP	PAUL & MARY G. CUNNINGHAM	01-BB36-0016.0000
AQ	FRANKLIN MILLER	01-BB36-0015.0000
AR	FRANKLIN MILLER	01-BB36-0014.0000
AS	FRANKLIN MILLER	01-BB36-0013.0000
AT	FRANKLIN MILLER	01-BB36-0012.0000
AU	FRANKLIN & CONNIE J. MILLER	01-BB36-0011.0000
AV	FRANKLIN & CONNIE J. MILLER	01-BB36-0010.0000
AW	CHERYL E. SMITH & LINDA CURIA (L/E: ROBERT & JOANN SMITH)	01-BB36-0009.0000
AX	STEVEN ANDREW & DEBBIE LYNN MURDOCK	01-BB36-0008.0000
AY	DANIEL L. & CATHY J. JOHNSTON	01-BB36-0007.0000
AZ	LELAND J. & TRACY A. DICKINSON	01-BB36-0006.0000
BA	CHRISTOPHER DEAN	01-B36K-0030.0000
BB	CHARLES G. & CHRISTINE L. HOOD	01-B36K-0031.0000

REVISIONS:	COMPANY:		
	OPERATOR'S		
	WELL #:		
	DISTRICT:	COUNTY:	STATE:
	BUFFALO	BROOKE	WV
	DATE: 04-26-2019		API NO: 47-009-00208
	DRAWN BY: D. REED		SCALE: N/A
	DRAWING NO: 2018-341		WELL LOCATION PLAT

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
BC	CHARLES G. & CHRISTINE L. HOOD	01-B36K-0050.0003
BD	JAMES D. MEADOWS	01-B36K-0050.0001
BE	JAMES D. MEADOWS	01-B36K-0050.0002
BF	MARK L. & SHARON KAY JORDAN	01-B36K-0050.0000
BG	MARK & SHARON KAY JORDAN	01-B36K-0049.0000
BH	JOHN & VIOLET E. CORSO	01-B36K-0048.0000
BI	JOHN & VIOLET E. CORSO	01-B36K-0047.0000
BJ	JOHN & VIOLET E. CORSO	01-B36K-0046.0000
BK	AYLSSA R. NEGRI	01-B36K-0045.0000
BL	AYLSSA NEGRI	01-B36K-0044.0000
BM	JOHN MILLER	01-B36K-0043.0000
BN	DONALD & ROSEMARIE MEADOWS	01-B36K-0042.0000
BO	MORRIS BLEAU	01-B36K-0041.0000
BP	MORRIS W. BLEAU	01-B36K-0040.0000
BQ	MORRIS BLEAU	01-B36K-0039.0000
BR	CARL B. LINDSEY	01-B36K-0038.0000
BS	LINDA DARLIN SPENCER	01-B36K-0037.0000
BT	MARISSA J. & ROBERT B. FORSHEY	01-B36K-0036.0000
BU	DONALD E. & PATRICIA A. GILBERT	01-B36K-0034.0000
BV	MARISSA J. FORSHEY	01-B36K-0033.0000
BW	MARISSA J. FORSHEY	01-B36K-0032.0000
BX	WANDA S. JONES	01-B36K-0014.0000
BY	BUSINESS DEVELOPMENT CORP OF THE NORTHERN PANHANDLE	01-B36K-0013.0000
BZ	DENNIS RUSCHEL	01-B36K-0002.0000
CA	THE VILLAGE OF BEECH BOTTOM	01-B36K-0003.0000
CB	DOLORES VIRGINIA COEN	01-B36K-0012.0000
CC	THE VILLAGE OF BEECH BOTTOM	01-B36K-0011.0000
CD	CURTIS D. & TINA L. OSSMAN	01-B36K-0010.0000
CE	WILLIAM JONES	01-B36K-0009.0000
CF	WILLIAM JONES	01-B36K-0008.0000
CG	NICHOLAS RYMIWEC	01-B36F-0096.0000
CH	GARY EDWARD & CONSTANCE L. COOPER	01-B36F-0095.0000
CI	UNKNOWN OWNER	01-B36F-0094.0000
CJ	WILLIAM E. & DEBRA L. LEONARD	01-B36F-0093.0000
CK	TARA A. SUTER	01-B36F-0092.0000
CL	TARA D. SUTER	01-B36F-0091.0000
CM	JOHN ESKEY	01-B36F-0090.0000
CN	AMY N. FREY	01-B36F-0089.0000
CO	BRUCE & DEBBI SELMON	01-B36F-0088.0000
CP	BRUCE & DEBBI SELMON	01-B36F-0085.0000
CQ	TERRY LYNN LILLY	01-B36F-0084.0000
CR	GEORGE W. & CHARLOTTE BARNHART	01-B36F-0081.0000
CS	GEORGE W. & CHARLOTTE BARNHART	01-B36F-0079.0000
CT	C & P TELEPHONE COMPANY OF WEST VIRGINIA	01-B36F-0078.0000
CU	BUSINESS DEVELOPMENT CORP OF THE NORTHERN PANHANDLE	01-B36F-0077.0000
CV	MARK T. SVETIC	01-B36F-0025.0000
CW	JAC FRED WV, LLC (A NORTH CAROLINA LLC)	03-B36F-0026.0000
CX	MICHAEL EDWARD & EMMA FEDCZAK	01-B36F-0076.0000
CY	MICHAEL EDWARD & EMMA FEDCZAK	01-B36F-0075.0000
CZ	SHELBY L. CASTO	01-B36F-0074.0000
DA	SHELBY L. CASTO	01-B36F-0073.0000
DB	PHYLLIS MARKER	01-B36F-0072.0000
DC	GLENN T. & GARDLYN MOORE	01-B36F-0071.0000
DD	CARDLYN K. MOORE	01-B36F-0070.0000
DE	JEFFREY & CHERYL WEEKLEY	01-B36F-0069.0000
DF	JEFFREY L. STOLLAR	01-B36F-0068.0000
DG	JUNE E. MORRELL	01-B36F-0067.0000
DH	JUNE E. MORRELL	01-B36F-0066.0000
DI	KENNETH R. ROWAN	01-B36F-0065.0000
DJ	ALLEN KEITH & CAROLE YAHRLING	01-B36F-0064.0000
DK	JUNE E. MORRELL	01-B36F-0063.0000
DL	EDWARD A. POLAND	01-B36F-0062.0000
DM	LELAND J. & TRACEY A. DICKINSON	01-B36F-0061.0000
DN	THE VILLAGE OF BEECH BOTTOM	01-B36F-0060.0000
DO	JOYCE L. PAINTER	01-B36F-0059.0000
DP	JANET L. RICHARDSON	01-B36F-0058.0000
DQ	JANET L. RICHARDSON	01-B36F-0057.0000
DR	JANET L. RICHARDSON	01-B36F-0056.0000
DS	JANET L. RICHARDSON	01-B36F-0055.0000
DT	JANET L. RICHARDSON	01-B36F-0054.0000
DU	MONONGAHELA POWER COMPANY	01-B36F-0053.0000
DV	LARRY W. GRIMES	01-B36F-0052.0000
DW	LARRY W. GRIMES	01-B36F-0051.0000
DX	BOARD OF EDUCATION	01-B36B-0106.0000
DY	CLINTON W. & LORRAINE DEWITT	01-B36B-0061.0000
DZ	RONNIE L. OTTO	01-B36B-0060.0000
EA	DONALD L. LYNCH	01-B36B-0018.0000
EB	THE VILLAGE OF BEECH BOTTOM	01-B36B-0016.0000
EC	THE VILLAGE OF BEECH BOTTOM	ALLEY A
ED	JUSTIN & AMANDA SMART	01-B36B-0015.0000
EE	JUSTIN & AMANDA SMART	01-B36B-0013.0000
EF	GEORGE M. & JUDY LEWIS	01-B36B-0014.0000
EG	GEORGE M. & JUDY LEWIS	01-B36B-0012.0000
EH	BELINDA DAUGHERTY & ET AL	01-B36B-0011.0000
EI	BARBARA MCCUTCHAN	01-B36B-0010.0000
EJ	WILLIAM B., JR. & ELIZABETH N. CAIN	01-B36B-0009.0000
EK	SHEILA ANN LAZEAR, ROBERT S. LAZEAR & ET AL	01-B36B-0008.0000
EL	SHEILA ANN LAZEAR, ROBERT S. LAZEAR & ET AL	01-B36B-0007.0000
EM	JOHN C. & KELLY A. RICHIE	01-B36B-0006.0000
EN	JOHN C. & KELLY A. RICHIE	01-B36B-0005.0000
EO	PATRICK J. DALBO	01-B36B-0002.0000
EP	THE VILLAGE OF BEECH BOTTOM	01-B36B-0001.0000
EQ	BROWNLEE LAND VENTURES, LP	01-B36B-0115.0000
ER	JOYCE A. SMITH	01-B36B-0120.0000

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
ES	HEALTHWAYS, INC.	01-B36B-0121.0000
ET	JEFFREY A. & AMY J. GIBSON	01-B36B-0122.0000
EU	ROSSO ENTERPRISE, LLC (A WEST VIRGINIA CORPORATION)	01-BB31-0008.0001
EV	GARY LEE & WENDY FAITH BENNETT	01-BB31-0010.0000
EW	WHEELING LAND DEVELOPMENT CORPORATION	01-BB31-0006.0000
EX	LEON W. FALCON, CRAIG A. FALCON & CARL J. FALCON	01-BB31-0044.0000
EY	THE VILLAGE OF BEECH BOTTOM	01-BB31-0027.0000
EZ	KEVIN A. & PATRICIA A. SHANE	01-BB31-0024.0000
FA	KEVIN A. & PATRICIA A. SHANE	01-BB31-0020.0000
FB	LISA LANCASTER	01-BB31-0021.0000
FC	ALBERT T. & SHEILA PELL	01-BB31-0025.0000
FD	BERNARD J. LOMBARD, III	03-B31-0074.0000
FE	UNKNOWN OWNER	03-B31-0074.0000
FF	JOYCE A. CAPELLE	01-BB31-0016.0000
FG	LOUIS W. MILLER	01-BB31-0014.0000
FH	LOUIS J. & ARLINE F. MILLER	01-BB31-0015.0000
FI	LOUIS J. & ARLINE F. MILLER	01-BB31-0017.0000
FJ	EDWARD A. CONERY	01-B36B-0125.0000
FK	LOUIS & ARLINE MILLER	03-B36-0005.0000
FL	LOUIS & ARLINE MILLER	03-B36-0006.0000
FM	STEPHEN A. FODOR	03-B36-0176.0000
FN	JOHN R. HOFFMAN & ALICE J. BUCHANAN	03-B36-0175.0000
FO	PAUL D. & KIMBERLY D. LEONARD	03-B36-0173.0000
FP	BRANNON P. & EMILY M. LEONARD	03-B36-0172.0000
FQ	BRANNON P. & EMILY M. LEONARD	03-B36-0171.0000
FR	HARLEY J. LEMASTERS	03-B36-0170.0000
FS	HARLEY J. LEMASTERS	03-B36-0047.0000
FT	HARLEY LEMASTERS	03-B36B-0046.0000
FU	HARLEY LEMASTERS	03-B36B-0045.0000
FV	HARLEY LEMASTERS	03-B36B-0044.0000
FW	HARLEY LEMASTERS	03-B36B-0043.0000
FX	HARLEY J. LEMASTERS	03-B36B-0042.0000
FY	HARLEY J. LEMASTERS	03-B36B-0041.0000
FZ	JOHN BADO	03-B36B-0002.0000
GA	JOHN BADO	03-B36L-0001.0000
GB	HUBERT ESTES & ERMA HEADEN	03-B36L-0002.0000
GC	LESTER & KATHERINE WALLACE	03-B36L-0003.0000
GD	LESTER & KATHERINE WALLACE	03-B36L-0004.0000
GE	LESTER & KATHERINE WALLACE	03-B36L-0005.0000
GF	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0027.0000
GG	WINDSOR POWER HOUSE COAL COMPANY	03-B36L-0028.0000
GH	FLOYD R. & DORIS M. LOUGHRIE	03-B36L-0030.0000
GI	ANTHONY ALLEN WHITEHEAD	03-B36L-0044.0000
GJ	CHRISTOPHER & MAUREEN GOLLOK	03-B36L-0043.0000
GK	KEITH L. HAMILTON	03-B36L-0034.0000
GL	KEITH L. HAMILTON	03-B36L-0035.0000
GM	KEITH HAMILTON	03-B36L-0037.0000
GN	FLOYD R. & DORIS M. LOUGHRIE	03-B36L-0038.0000
GO	TAMMY S. MASSEY	03-B36L-0039.0000
GP	BRIAN L. TESLOVICH	03-B36-0145.0000
GQ	COLUMBIA GAS COMPANY	03-B36-0144.0000
GR	LYNN COULTER, DAVID COULTER & ET AL	03-B36-0143.0000
GS	BEECH BOTTOM VOLUNTEER FIRE DEPARTMENT	03-B36-0105.0000
GT	TREVOR SEAN RICHMAN	03-B36-0106.0000
GU	MARK A. & MELODY J. ADAMS	03-B36-0142.0000
GV	FREDERICK B. & JULIE M. DAVIS	03-B36-0108.0000
GW	DAVID MCCLURE	03-B36-0110.0000
GX	CAROL L. DUFFY	03-B36-0113.0000
GY	LORETTA JOAN BASIL	03-B41-0099.0000
GZ	ERNEST F. & JOANNE P. CAPP	03-B41-0098.0000
HA	ELIZABETH ELLEN FLUHARTY	03-B41-0095.0000
HB	DANIEL R. GORBY	03-B41-0061.0005
HC	COREY CONLEY	03-B41-0061.0005
HD	SANDRA W. BUTLER	03-B41-0061.0009
HE	SANDRA BUTLER	03-B41-0069.0000
HF	RONALD C. BUTLER, CHRISTINA BUTLER & JAMES R. BUTLER	03-B41-0070.0000
HG	SANDRA W. BUTLER	03-B41-0072.0000
HH	SANDRA W. BUTLER	03-B41-0078.0000
HI	JAY G. COLLINS	03-B41-0079.0000
HJ	JAY G. COLLINS, II	03-B41-0085.0000
HK	HENRY MIKELS & BONNIE J. BURKETT	03-B41-0086.0001
HL	JASON D. & MARY E. WHITE	03-B41-0086.0000
HM	ROBERT D., II & LESLIE C. HILDEBRAND	03-B42-0063.0000
HN	FRANK G. & KELLY L. AINSCOUGH	03-B42-0071.0000
HO	HENRY HEINZEROTH	03-B42-0032.0000
HP	APPALACHIA MIDSTREAM SERVICES, LLC	03-B42-0030.0000
HQ	APPALACHIA MIDSTREAM SERVICES, LLC	03-B42-0031.0000
HR	APPALACHIA MIDSTREAM SERVICES, LLC	03-B42-0029.0000
HS	ELIZABETH ELLEN FLUHARTY	03-B47-0018.0000
HT	MARK & TRINA PROVENZANO	03-B41-0080.0001

06/07/2019

REVISIONS:	COMPANY:		 	
	OPERATOR'S		KATHY MAYHEW BRK	
	WELL #:		201H	
	DISTRICT:	COUNTY:	STATE:	DATE: 04-26-2019
	BUFFALO	BROOKE	WV	API NO: 47-009-00208
				DRAWN BY: D. REED
				SCALE: N/A
				DRAWING NO: 2018-341
				WELL LOCATION PLAT



4700900208 201 H

06/07/2019
SWN Production Company, LLC
1300 Fort Pierpont Dr, Ste 201
Morgantown, WV 26508
Tel: 304 884 1610
Fax: 304 471 2497
www.swn.com

April 29, 2019

Ms. Laura Adkins
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Proposed Modifications: Kathy Mayhew BRK 1H & Kathy Mayhew BRK 201H

Dear Ms. Adkins

Enclosed please find the updated 6B, casing program, WBD, mylar, leases, and road letters for the above captioned wells. We are extending the laterals. These wells are situated on the Mayhew's property, in Liberty District, Brooke County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1613

Thank you.

Sincerely,

Brittany Woody
Senior Regulatory Analyst
Southwestern Energy Production Company, LLC

RECEIVED
Office of Oil and Gas
MAY 1 2019
WV Department of
Environmental Protection

The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+[®]