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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, July 1, 2020  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC  
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit Modification Approval for ROBERT BONE BRK 205H  
47-009-00288-00-00

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.

James A. Martin  
Chief

A handwritten signature in blue ink, appearing to read 'Jim Martin', is located to the right of the typed name and title.

Operator's Well Number: ROBERT BONE BRK 205H  
Farm Name: ROBERT O. BONE  
U.S. WELL NUMBER: 47-009-00288-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 7/1/2020

Promoting a healthy environment.

4700900288

WW-65  
(04/15)

API NO. 47-009

OPERATOR WELL NO. Robert Bone BRK 205H

Well Pad Name: Robert Bone BRK 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 494512924 009-Brook 01-Buffal 247-Bethany & 62  
Operator ID County District Quadrangle

2) Operator's Well Number: Robert Bone BRK 205H Well Pad Name: Robert Bone BRK Pad

3) Farm Name/Surface Owner: Robert Bone Public Road Access: Hukill Run Road

4) Elevation, current ground: 1148' Elevation, proposed post-construction: 1148'

5) Well Type (a) Gas  (b)  Underground Storage

Other

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No Yes

*C. B. O. 6/2/2020*

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Target Formation- Marcellus, Up-Dip Well to the North, Target Top TVD- 5831', Target Base TVD- 5883', Anticipated Thickness- 52', Associated Pressure- 3823

8) Proposed Total Vertical Depth: 5868'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 24594

11) Proposed Horizontal Leg Length: 17819.78

12) Approximate Fresh Water Strata Depths: 344'

13) Method to Determine Fresh Water Depths: Salinity Profile

14) Approximate Saltwater Depths: 627' Salinity Profile

15) Approximate Coal Seam Depths: 309'

16) Approximate Depth to Possible Void (coal mine, karst, other): Possible Void 309'

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: \_\_\_\_\_

*Check #0001051575  
6/2/2020  
\$5,000.00*

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4700900288

WW-6B  
(04/15)

API NO. 47-009

OPERATOR WELL NO. Robert Bone BRK 2051

Well Pad Name: Robert Bone BRK 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	J-55	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	J-55	54.4#	420'	420'	414 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	1643'	1643'	521 sx/CTS
Production	5 1/2"	New	P-110 HP	20#	24,594'	24,594'	748 sx/CTS
Tubing							
Liners							

*[Handwritten Signature]* 6-8-2020

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	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	1.20/50% Excess
Tubing							
Liners							

PACKERS

Kind:					
Sizes:					
Depths Set:					

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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 or run external casing packer/cementing stage tool above void interval and perform 2 stage cementing operation dependent upon depth of void. Run casing not less than 20' below void nor more than 75' 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, horizontal separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 100 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.30

22) Area to be disturbed for well pad only, less access road (acres): 5.97

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 \*\*\*

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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.

4700900288

**Southwestern Energy Company**

**Proposed Drilling Program**

Well: ROBERT BONE BRK 205  
 Field: PANHANDLE FIELD WET  
 County: BROOKE  
 SHL: 40.2190 Latitude -80.6024 Longitude  
 BHL: 40.2660 Latitude -80.6196 Longitude  
 KB Elev: 1,174 ft MSL

Re-entry Rig: TBD  
 Prospect: Marcellus Shale  
 State: WV  
 GL Elev: 1,148 ft MSL



*C-R Hall*  
 6-8-2020

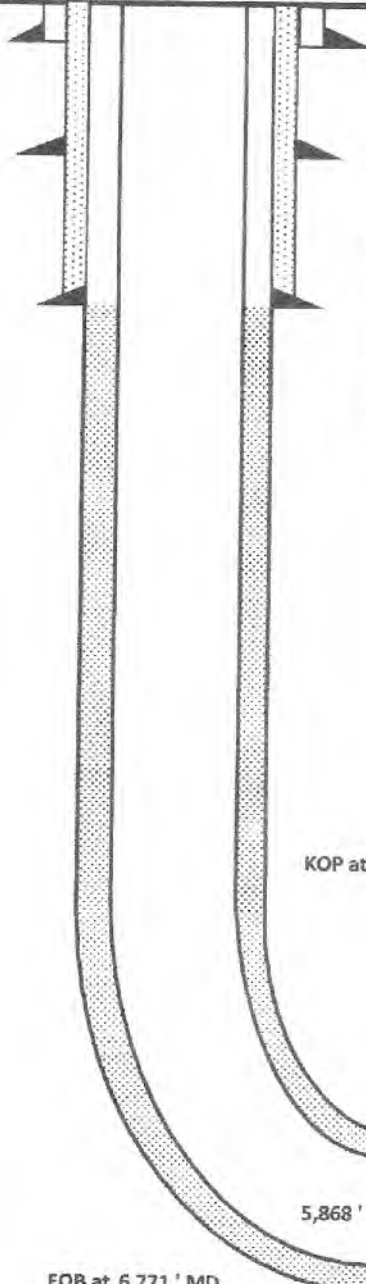
PROD TOC Lead @ 1,767' MD  
 PROD TOC Tail @ 5,021' MD

**TUBULAR DETAIL**

Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	100'
Surface/Coal	13.375	54.4 #	J-55	0'	420'
Intermediate	9.625	36.0 #	J-55	0'	1,643'
Production	5.5	20.0 #	P-110 HP	0'	24,594'

**CEMENT DETAIL**

	Sacks	Class	Density
Conductor:	151	A	19.3
Surface:	414	A	15.6
Intermediate:	521	A	15.6
Production:	4488	A	15.6



Freshwater Depth - 344' TVD  
 Coal Depth - 309' TVD  
 Saltwater Depth - 627' TVD  
 TVD - 5,868'  
 TMD - 24,594'

EOB at 6,771' MD  
 EOB at 5,868' TVD  
 SHL Onondaga 5,883' TVD

Created by: C R Hall on 05/27/2020

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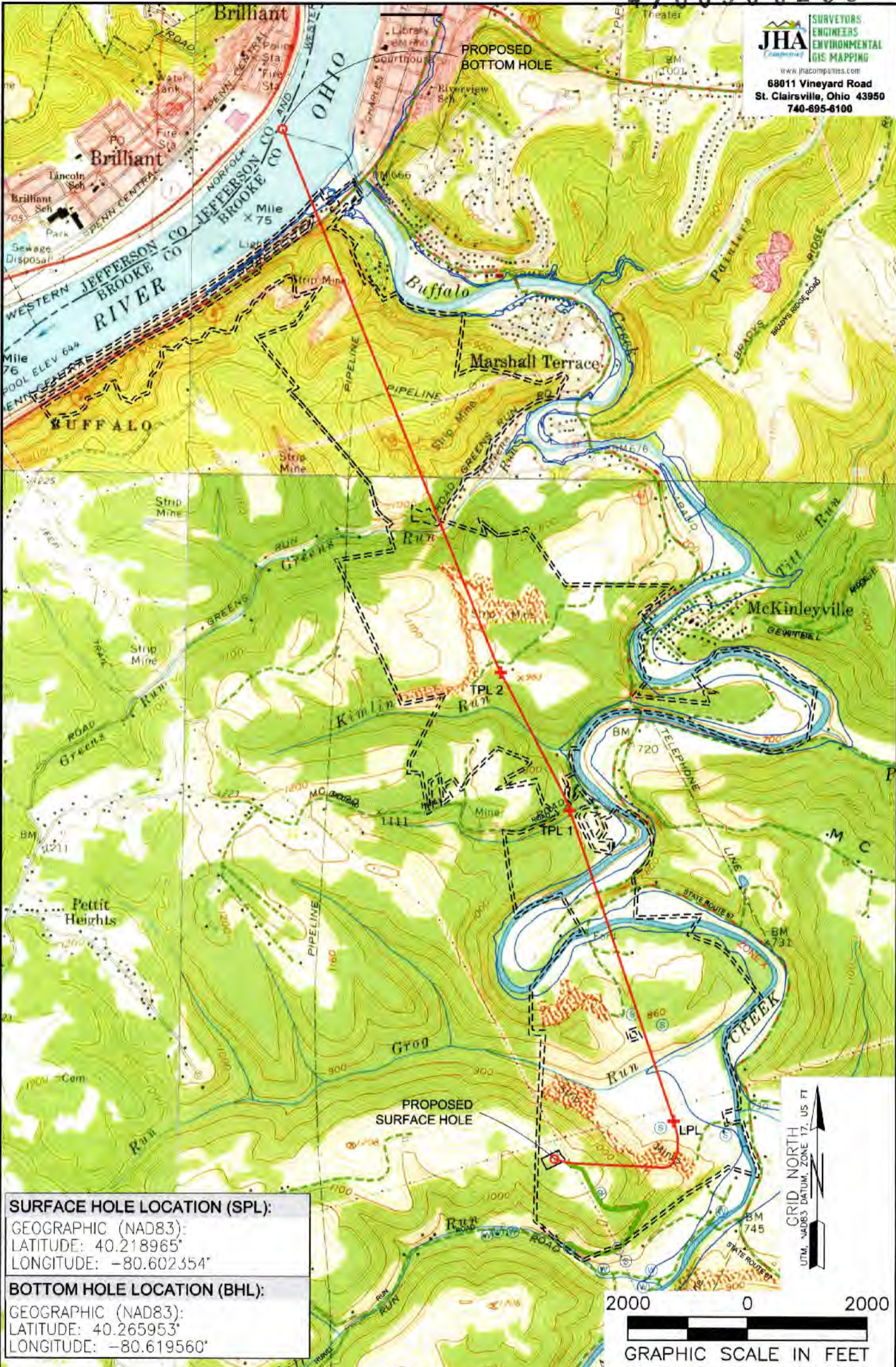
WV Department of  
 Environmental Protection

4700900288

Robert Bone BRK 205H AOR

API	Operator	Status	Latitude	Longitude	Vertical TD	Producing Formation	Producing Zones Not Perforated
47-009-00104	SWN PRODUCTION COMPANY, LLC	ACTIVE	40.219135	-80.602340	5750'	MARCELLUS	

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**SURFACE HOLE LOCATION (SPL):**  
GEOGRAPHIC (NAD83):  
LATITUDE: 40.218965°  
LONGITUDE: -80.602354°

**BOTTOM HOLE LOCATION (BHL):**  
GEOGRAPHIC (NAD83):  
LATITUDE: 40.265953°  
LONGITUDE: -80.619560°

**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

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> ROBERT BONE BRK	<b>WELL #</b> 205H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY - CODE</b> BROOKE - 009	<b>DISTRICT;</b> BUFFALO	
<b>SURFACE OWNER:</b> ROBERT O. BONE	<b>USGS 7 1/2 QUADRANGLE MAP NAME</b> BETHANY, WV & EAST STEUBENVILLE, OH		

(2,000' SCALE) LATITUDE: 40°15'00" SURFACE HOLE 5323'

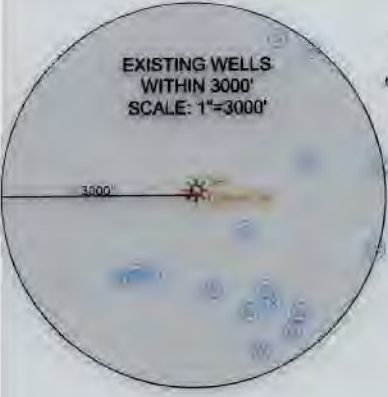
(2,000' SCALE) LATITUDE: 40°17'30" BOTTOM HOLE 9729'

**JHA** SURVEYORS ENGINEERS ENVIRONMENTAL GIS MAPPING  
www.jha.companies.com  
68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100

GRID NORTH  
UTM, NAD83 DATUM, ZONE 17, US FT

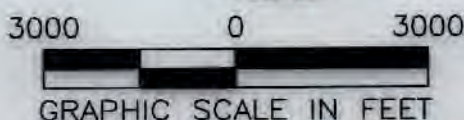
**NOTES ON SURVEY**

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 250 FEET OF PROPOSED WELL.



<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4452136.49
EASTING: 533834.31
<b>LANDING POINT (LPL):</b>
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4452340.98
EASTING: 534459.31
<b>TURNING POINT LOCATION (TPL1)</b>
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4453907.90
EASTING: 533879.61
<b>TURNING POINT LOCATION (TPL 2)</b>
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4454604.06
EASTING: 533512.81
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4457345.47
EASTING: 532347.98

LINE	BEARING	DISTANCE
L1	S 55°06'46" W	857.01'
L2	N 77°49'15" W	2083.00'



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. 2041



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200  
PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

COMPANY: **SWN** Production Company, LLC  
OPERATOR'S WELL #: ROBERT BONE BRK 205H  
API WELL #: 47 009 00288  
STATE COUNTY PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION  DEEP GAS  LIQUID INJECTION STORAGE SHALLOW   
WATERSHED: UPPER OHIO SOUTH ELEVATION: 1147.6'  
DISTRICT: BUFFALO COUNTY: BOOKE QUADRANGLE: BETHANY, WV & EAST STEUBENVILLE, OH  
SURFACE OWNER: ROBERT O. BONE ACREAGE: ±80.99  
OIL & GAS ROYALTY OWNER: ROBERT O. BONE ACREAGE: ±80.99  
DRILL  DRILL DEEPER REDRILL FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION PERFORATE NEW FORMATION  
CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)  
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,868' TVD 24,594' TMD

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

DESIGNATED AGENT: BRITTANY WOODY  
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201  
CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

**LEGEND:**

	PROPOSED SURFACE HOLE / BOTTOM HOLE		SURVEYED BOUNDARY
	EXISTING / PRODUCING WELLHEAD		DRILLING UNIT
	LANDING POINT LOCATION		LEASE BOUNDARY
	EXISTING WATER WELL		PROPOSED PATH
	EXISTING SPRING		

<b>REVISIONS:</b>	<b>DATE:</b> 06-05-2020
	DRAWN BY: R. GRIMES
	SCALE: 1" = 3000'
	DRAWING NO: 2017-219
	WELL LOCATION PLAT

8442'  
11328'  
(2,000' SCALE) LONGITUDE: -80°35'00" BOTTOM HOLE  
(2,000' SCALE) LONGITUDE: -80°35'00" SURFACE HOLE



WELL BORE TABLE FOR SURFACE/ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	ROBERT O. BONE (S/R)	03-837-081.0
TRACT	SURFACE OWNER	TAX PARCEL
2	WILLIAM E. & HAZEL E. JOHNSTON	03-837-050.0
3	MARK A. CHRISTMAN	03-837-045.0
4	DONNA A. MAZZELLA	03-837-044.0
5	VINCENT & PHILLIP MAZZELLA	03-837-046.0
6	VINCENT & PHILLIP MAZZELLA	03-832-128.0
7	JOSEPH C. & PENNY J. MORRIS	03-832-129.0
8	KEVIN R. & SANDRA A. COLLINS	03-832-130.0
9	REBECCA L. UHLLY	03-832-139.0
10	DAVID L. & JULIE A. HALL	03-832-136.0
11	CHARLES W. & TAMMY WAGNER	03-832-193.0
12	HAMMOND PUBLIC SERVICE DISTRICT	03-832-194.1
13	BENITA HOIT, JAMES R. JOHNSON JR., LURA M. JOHNSON(F.K.A. LURA M. HOIT), JEANETTA WELLMAN, KENT WELLMAN, RANDY WELLMAN, & CHARLES LANE KILDOW	03-832-194.0
14	PATRICIA WILLIAMS	03-832-198.0
15	SAMUEL H. HUBBARD	03-832-096.0
16	ROBERT G. TREADWAY	03-832-188.0
17	SCHIAPPA & COMPANY, INC	03-832-009.0
18	SCHIAPPA & COMPANY, INC	03-832-010.0
19	ROBIE & GERTRUDE LOUISE MCSHANE	03-832-029.0
20	ROBIE & GERTRUDE LOUISE MCSHANE	03-827P-030.0
21	NORMA JEAN LILLY	03-827-017.0
22	HFS LIMITED LIABILITY COMPANY	03-827-012.0
23	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	03-827-004.0
24	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	STATE ROUTE 2
25	GREG PROVENZANO	03-827-009.0
26	CAMPBELL TRANSPORTATION COMPANY	03-827-008.0
27	STATE OF WEST VIRGINIA, DEPARTMENT OF HIGHWAYS	03-827-011.0
28	CAMPBELL TRANSPORTATION COMPANY	03-827-010.0
29	STATE OF WEST VIRGINIA	OHIO RIVER

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	BENJAMION M. MOSA & CHRISTINE L. HEISE (SURVIVOR)	03-837-074.0
B	BENJAMION M. MOSA & CHRISTINE L. HEISE (SURVIVOR)	03-837-079.0
C	TERRENCE & SUSAN BONE	03-837-080.0
D	BRIAN K. & GINA M. HANEY (SURVIVOR)	03-837-077.0
E	DEMURI HOME AND GARDENS LLC	03-837-082.0
F	DEBRA CYPHERT, MATTHEW H. FAIR, SUSAN S. FAIR, RICHARD HENTORN	03-837-088.0
G	DEBRA CYPHERT, MATTHEW H. FAIR, SUSAN S. FAIR, RICHARD HENTORN	03-837-091.0
H	SCHIAPPA AND COMPANY INC	03-837-023.0
I	SCHIAPPA AND COMPANY INC.	03-837-022.0
J	JAMIE L. OHLER	03-837-043.0
K	KEVIN D. & BRIDGET KOSUT	03-837-042.0
L	CITY OF WELLSBURG COMBINED WATER AND SEWAGE	03-832-140.2
M	JOSEPH P. LIZON III & ERIN REBECCA NIXON	03-832-192.1
N	JOSEPH P. LIZON III & ERIN REBECCA NIXON	03-832-192.1
O	JAMES J. ALLEY	03-832-191.0
P	DAVID MCGOWAN	03-832-190.0
Q	ROBERT G. TREADWAY JR	03-832-189.0
R	KAREN L. REINACHER	03-832-187.0
S	ROBERT G. TREADWAY JR	03-832-188.0
T	CHARLES M. & BARBARA TREADWAY	03-832-186.0
U	LILLIAN MCCORD	03-832-185.0
V	MASLO FARMS LLC, A PENNSYLVANIA LLC	03-832-019.0
W	JOPSEPH VIDERMAN, ETAL	03-832-013.0
X	PENNY HAMILTON	03-832-011.0
Y	TONY J. CASTILLO & RICHARD R. OSTRANDER	03-832-027.0
Z	TONY J. CASTILLO & RICHARD R. OSTRANDER	03-832-028.0
AA	MELINDA B. WOOLWINE, ETAL	03-832-025.0
AB	JAMES L. & SONDRA K ELLIOT	03-831-121.0
AC	HFS LIMITED LIABILITY COMPANY	03-831-001.0
AD	HFS LIMITED LIABILITY COMPANY	03-831-002.0
AE	CAMPBELL TRANSPORTATION COMPANY INC	03-827-003.0
AF	STATE OF WEST VIRGINIA	BUFFALO CREEK
AG	BROOKE COUNTY BOARD OF EDUCATION	03-827K-212.0
AH	ABANDON RAILWAY, SOUTH OF BUFFALO CREEK	03-827K-188.0
AI	JOSEPH K. & DIANA R. MENDEL (SURVIVOR)	03-827K-186.0
AJ	DIANE MENDEL	03-827-013.0
AK	DANIEL P. & DARLA ANN LOMBARDI (SURVIVOR)	03-827-016.0
AL	DANIEL P. LOMBARDI	03-827K-211.0
AM	ALLEN LEE & PAUL DAVID FORSYTHE	03-827K-210.0
AN	ROBERT C. III, & RONICA L. CRISS (SURVIVOR)	03-827K-206.0
AO	ROBERT C. III, & RONICA L. CRISS (SURVIVOR)	03-827K-205.1
AP	RANDY M. & BRENDA WILLIAMS	03-827K-204.0
AQ	RANDY M. & BRENDA WILLIAMS	03-827K-203.0
AR	RANDY M. & BRENDA WILLIAMS (SURVIVOR)	03-827K-202.0
AS	JOHN J. FRISCO SR. (1/3) & JOSEPHINE IWANYSZN (2/3)	03-827K-189.0
AI	JOHN J. FRISCO SR. (1/3) & JOSEPHINE IWANYSZN (2/3)	03-827K-190.0
AU	EDWARD MACIAK	03-827P-031.0
AV	LUCINDA F. & NIKOLAI A. LUKSHIN (SURVIVOR)	03-827R-050.0
AW	GEORGIANN & EVERETT DAY	03-827R-084.0
AX	EDWARD W. & LESA M. NICHOLSON	03-827R-082.0
AY	GREGORY DEDITCH	03-832-001.0
AZ	RONALD A. PETRUCCIOLI (L/E ROBERT A. & MARIE ELIZABETH PETRUCCIOLI)	03-832-002.0

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
BA	RONALD A. PETRUCCIOLI (L/E ROBERT A. & MARIE ELIZABETH PETRUCCIOLI)	03-832-003.0
BB	GLEN A. & SUSAN L. STEWART	03-832-004.0
BC	WILLIAM R. WALNOHA	03-832-005.0
BD	WILLIAM R., CAROLYN S., & JESSICA WALNOHA	03-832-007.0
BE	DAVID B. JONES	03-832-008.0
BF	MELANIE J. LUNSFORD	03-832-072.0
BG	WILLIAM WHEAT & CARRIE HIGGS (JTWS)	03-832-071.0
BH	WILLIAM WHEAT & CARRIE HIGGS (JTWS)	03-832-070.0
BI	PATRICIA SAUVAGEOT & GLORIA PREMESA	03-832-069.0
BJ	JAY D. & KAREN SUJE RECK	03-832-068.0
BK	JAY & KAREN RECK	03-832-067.0
BL	JAY D. & KAREN S. RECK (SURVIVOR)	03-832G-067.1
BM	HERBERT MCGOWAN	03-832G-067.0
BN	DEMURI HOME & GARDENS LLC	03-832G-001.0
BO	KAY A. ELLIOT	03-832G-003.0
BP	KAY A. ELLIOT	03-832G-004.0
BQ	LARRY MICHAEL & DEBORAH RENEE REED (JTWS)	03-832G-005.0
BR	LARRY M. & DEBORAH R. REED (SURVIVOR)	03-832G-006.0
BS	STARVAGGI INDUSTRIES, INC	03-832G-063.0
BT	ROBERT F. & ANNA OHLER	03-832G-007.0
BU	JOHN H. FOX	03-832G-008.0
BV	JAMES E. & ANNETTE M. BEST	03-832G-009.0
BW	JAMES E. & ANNETTE M. BEST	03-832G-010.0
BX	MATTHEW PATRICK TOMSHACK	03-832G-011.0
BY	MATTHEW PATRICK TOMSHACK	03-832G-088.0
BZ	PAUL W. & SUSAN A. FOODOR	03-832-089.0
CA	MICHAEL & DELLA SEREVICZ	03-832-090.0
CB	JAMES E. & ANNETTE M. BEST	03-832-201.0
CC	ALBERT A. & LOTTIE STEWART	03-832H-050.0
CD	STARVAGGI INDUSTRIES INC	03-833-054.0
CE	SAMUEL HERVEY HUBBARD	03-832-097.0
CF	MARK & GEORGIA FEDAK	03-832-099.0
CG	MARK & GEORGIA FEDAK (SURVIVOR)	03-832-100.0
CH	MARK & GEORGIA FEDAK	03-832-101.0
CI	HARRY & JUDITH ICKES (SURVIVOR)	03-832-133.0
CJ	PATRICIA WILLIAMS	03-832-134.0
CK	GARY L. GAMBILL	03-832-197.0
CL	WESLEY RINE	03-832-196.0
CM	WESLEY RINE	03-832-195.0
CN	HAMMOND PUBLIC SERVICE DISTRICT	03-832-135.0
CO	DAVID L. & JULIE A. HALL (SURVIVOR)	03-832-137.1
CP	DAVID L. & JULIE A. HALL (SURVIVOR)	03-832-137.0
CQ	DAVID L. & JULIE A. HALL (SURVIVOR)	03-832-138.0
CR	KEVIN R. & SNADRA A. COLLINS (SURVIVOR)	03-832-130.1
CS	BERNARD L. & DONNA J. MILLER (SURVIVOR)	03-832-132.0
CT	BERNARD L. MILLER JR	03-832-131.0
CU	DEMURI HOME & GARDEN LLC	03-832-112.0
CV	ANDREA CUTRONE	03-832-113.0
CW	H3 LLC	03-832-114.0
CX	DEMURI HOME & GARDENS LLC	03-832-115.0
CY	ROWDY T. GEORGETTI	03-832-116.0
CZ	MAZZELLA WELDING & FABRICATION INC	03-837-046.1
DA	DWARKA NATH DEMURI DBA AMERICAN HEART ASSOCIATES	03-837-047.0
DB	RICHARD RODGERS, CHERI SHARP, EDWARD O'DYER, ETAL	03-837-048.0
DC	WILLIAM E. & HAZEL M. JOHNSTON	03-837-053.1
DD	MARLIN G. SR & JOY CRAWFORD (SURVIVOR)	03-837-055.0
DE	BUFFALO CREEK CAMP	03-837-051.0
DF	JOHN E. & SHERRIL J. RIPLEY (SURVIVOR) (L/E WILDA RIPLEY)	03-837-062.0
DG	JOSEPH K. & GLORIA BOWMAN	03-837-070.0
DH	JOSEPH K. SR & GLORIA J. BOWMAN (SURVIVOR)	03-837-069.1
DI	CAROLE SILVER, CAYMAN MCDONALD, JENNIFER FERGUSON, ETAL	03-837-071.0
DJ	WILLIAM E. JOHNSTON & HAZEL E. BERTY	03-837-074.1
DK	SMITH REAL ESTATE LLC	03-827-007.0
DL	SMITH REAL ESTATE LLC	03-827-006.0
DM	SMITH REAL ESTATE LLC	03-827-005.0
DN	GERTRUDE ROBIE & LOUISE MCSHANE	03-832-030.0
DO	HAMMOND PUBLIC SERVICE DISTRICT	03-837-045.1

REVISIONS:	COMPANY:		
	OPERATOR'S	ROBERT BONE	
	WELL #:	BRK 205H	
	DISTRICT:	COUNTY:	STATE:
	BUFFALO	BROOKE	WV
			DATE: 06-05-2020
			DRAWN BY: R. GRIMES
			SCALE: N/A
			DRAWING NO: 2017-219
			WELL LOCATION PLAT

WW-6A1  
(5/13)

Operator's Well No. Coburn Blue Lick 2007

**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
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: [Signature]  
 Its: Staff Engineer

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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  
 Robert Bone BRK 205H  
 Brooke County, West Virginia

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG
1)	03-0B37-0081-0000-0000	Robert O. Bone	Chesapeake Appalachia, LLC SWN Production Company, LLC	14.00%	10/424 30/480
2)	03-0B37-0050-0000-0000	John L. Latimer and Angela Latimer, and Deborah Starr	Great Lakes Energy Partners  Range Resources - Appalachia, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC Chesapeake Appalachia, LLC	14.00%	9/713  20/733 10/552 30/480 12/298
3)	03-0B37-0045-0000-0000	Schiappa Mary 74 Trust f/b/o Huberta A Siciliano JP	SWN Production Company, LLC Chesapeake Appalachia, LLC	20.00%	30/480 10/470
4)	03-0B37-0044-0000-0000	Schiappa Mary 74 Trust f/b/o Teresa Schiappa	SWN Production Company, LLC Chesapeake Appalachia, LLC	20.00%	30/480 10/469
5)	03-0B37-0046-0000-0000	Schiappa Mary 74 Trust f/b/o Huberta A Siciliano JP	SWN Production Company, LLC Chesapeake Appalachia, LLC	20.00%	30/480 10/470
6)	03-0B32-0128-0000-0000	Schiappa Mary 74 Trust f/b/o Teresa Schiappa	SWN Production Company, LLC Chesapeake Appalachia, LLC	20.00%	30/480 10/469
7)	03-0B32-0129-0000-0000	Vivian Mazzella, a widow Vivian Mazzella, a widow	SWN Production Company, LLC Chesapeake Appalachia, LLC SWN Production Company, LLC	18.00%	30/480 14/730 30/480
8)	03-0B32-0129-0000-0000	Joseph C. Morris and Penny J. Morris, husband and wife	Chesapeake Appalachia, LLC SWN Production Company, LLC Range Resources - Appalachia, LLC	18.00%	14/730 30/480 10/304
9)	03-0B32-0129-0000-0000	Chesapeake Appalachia, LLC SWN Production Company, LLC	Chesapeake Appalachia, LLC SWN Production Company, LLC	12.50%	10/552 30/480

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 Robert Bone BRK 205H  
 Brooke County, West Virginia

8)	03-0B32-0130-0000-0000	Ina Grace Walker, a widow	Chesapeake Appalachia, LLC	18.00%	18/254
		James C. Ditty, a widower	SWN Production Company, LLC	18.00%	30/480
		Marilyn McCord, a widow and remarried	Chesapeake Appalachia, LLC	18.00%	18/265
			SWN Production Company, LLC	18.00%	30/480
			Chesapeake Appalachia, LLC	18.00%	18/309
		Nila Helen Boyd, widow and remarried	SWN Production Company, LLC	18.00%	30/480
			Chesapeake Appalachia, LLC	18.00%	18/314
		John Cheffy McCord III and Patricia McCord	SWN Production Company, LLC	18.00%	30/480
			Chesapeake Appalachia, LLC	18.00%	18/319
		Clinton Douglas McCord and Christy A. McCord	SWN Production Company, LLC	18.00%	30/480
			Chesapeake Appalachia, LLC	18.00%	18/498
		Carolyn Ann Ward, f/k/a Carolyn Ann McCord Jones, a widow and remarried	SWN Production Company, LLC	18.00%	30/480
			Chesapeake Appalachia, LLC	18.00%	18/579
		Ralph Johnston	SWN Production Company, LLC	18.00%	30/480
			SWN Production Company, LLC	18.00%	35/427
		Robert Johnston	SWN Production Company, LLC	18.00%	35/416
		Daniel Johnston	SWN Production Company, LLC	18.00%	35/223
		Kenneth Johnston	SWN Production Company, LLC	18.00%	35/229
		Brian Johnston	SWN Production Company, LLC	18.00%	35/241
		Joyce A. Brady	SWN Production Company, LLC	18.00%	35/235
9)	03-0B32-0139-0000-0000	James C. Ditty, a widower	Chesapeake Appalachia, LLC	18.00%	18/265
		Ina Grace Walker, a widow	SWN Production Company, LLC	18.00%	30/480
			Chesapeake Appalachia, LLC	18.00%	18/254
			SWN Production Company, LLC	18.00%	30/480

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 Robert Bone BRK 205H  
 Brooke County, West Virginia

	Marilyn McCord, a widow and remarried	Great Lakes Energy Partners, L.L.C.	12.50%	10/55, 27/118
10)	03-0B32-0136-0000-0000	David L. Hall and Julie A. Hall	18.00%	17/743
		Chesapeake Appalachia, LLC		30/480
		SWN Production Company, LLC		
		Range Resources - Appalachia, LLC		20/733
		Chesapeake Appalachia, LLC		10/552
		SWN Production Company, LLC		30/480
11)	03-0B32-0193-0000-0000	Frank W. Aracich and Joan C. Aracich	18.00%	18/124
		Chesapeake Appalachia, LLC		30/480
		SWN Production Company, LLC		
12)	03-0B32-0194-0001-0000	Hammond Public Service District	18.00%	35/557
13)	03-0B32-0194-0000-0000	James R. Johnson Jr and Lura M. Johnson f/k/a Lura Hoit	18.00%	18/129
		Chesapeake Appalachia, LLC		
		SWN Production Company, LLC		30/480
		SWN Production Company, LLC		39/705
		Benita A. Stroop	14.00%	38/717
		Jeannetta Margrave	14.00%	38/711
		Kent Wellman	14.00%	
14)	03-0B32-0198-0000-0000	Marilyn Rosetta McCord	18.00%	18/220
		Chesapeake Appalachia, LLC		30/480
		SWN Production Company, LLC		
15)	03-0B32-0096-0000-0000	Samuel H Hubbard and Sheila Hubbard	18.00%	11/720
		Chesapeake Appalachia, LLC		
		SWN Production Company, LLC		30/480
16)	03-0B32-0188-0000-0000	Robert G Tredway Jr, divorced	12.50%	26/585
		Chesapeake Appalachia, LLC		30/480
		SWN Production Company, LLC		
		Theresa Ann McCloud	12.50%	26/511
		Chesapeake Appalachia, LLC		33/492
		SWN Production Company, LLC		
		Donna Jean Fulks	12.50%	26/516
		Chesapeake Appalachia, LLC		33/492
		SWN Production Company, LLC		

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 Robert Bone BRK 205H  
 Brooke County, West Virginia

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17)	03-0B32-0009-0000-0000	Schiappa and Company, Inc.	SWN Production Company, LLC	15.50%	33/356
18)	03-0B32-0010-0000-0000	Schiappa and Company, Inc.	SWN Production Company, LLC	15.50%	33/356
19)	03-0B32-0029-0000-0000	Gertrude Louise McShane Robie and Richard Robert Robie	SWN Production Company, LLC	18.00%	33/605
20)	03-0B27P-0030-0000-0000	Gertrude Louise McShane Robie and Richard Robert Robie	SWN Production Company, LLC	18.00%	33/605
21)	03-0B27-0017-0000-0000	Gertrude M. Nichols Burns	SWN Production Company, LLC	18.00%	33/452
		Shawn Catlin and Lisa Catlin	Chesapeake Appalachia, LLC	14.00%	24/37, 24/420
		Frank Eugene Cominotti	SWN Production Company, LLC	18.00%	30/480
		John A. Cominotti	Chesapeake Appalachia, LLC	18.00%	25/377
		Robert John Gierke	SWN Production Company, LLC	18.00%	30/480
		Carol Lynn Gierke Harms	SWN Production Company, LLC	18.00%	23/630, 24/425
		Sandra Gierke Kaplafa	SWN Production Company, LLC	18.00%	30/480
		Lisa M. Brichta	SWN Production Company, LLC	18.00%	30/480
		William Moran and Josie Lynn Moran	Chesapeake Appalachia, LLC	18.00%	30/480
		Nelson Campbell Nicholls, III	SWN Production Company, LLC	18.00%	33/613
		Galen H Smith Jr	Chesapeake Appalachia, LLC	18.00%	33/457
		Bonnie Smith	SWN Production Company, LLC	18.00%	33/442
		Robert Joseph Smith	SWN Production Company, LLC	18.00%	35/691
		Lisa J. Packard and William Packard	Chesapeake Appalachia, LLC	18.00%	23/635, 24/181
		Phyllis Gierke Wheeler	SWN Production Company, LLC	18.00%	30/480
		Rita K Wineman	Chesapeake Appalachia, LLC	18.00%	33/447
			SWN Production Company, LLC	18.00%	25/372
			SWN Production Company, LLC	18.00%	30/480
			SWN Production Company, LLC	18.00%	34/333, 35/134
			Chesapeake Appalachia, LLC	18.00%	24/42, 24/171
			SWN Production Company, LLC	18.00%	30/480
			SWN Production Company, LLC	18.00%	33/618
			SWN Production Company, LLC	18.00%	33/462
			Chesapeake Appalachia, LLC	18.00%	24/32, 24/176
			SWN Production Company, LLC	18.00%	30/480

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 Robert Bone BRK 205H  
 Brooke County, West Virginia

22)	03-0B27-0012-0000-0000	HFS Limited Liability Company	Chesapeake Appalachia, LLC SWN Production Company, LLC	18.00%	15/394 30/480
23)	03-0B27-0004-0000-0000	West Virginia Department of Transportation, Division of Highways	SWN Production Company, LLC	20%	55/301
24)	State Route 2	RIGHT OF WAY ONLY			
25)	03-0B27-0009-0000-0000	Greg Provenzano	SWN Production Company, LLC	18.00%	51/484
26)	03-0B27-0008-0000-0000	Campbell Transportation Company, Inc.	SWN Production Company, LLC	18.00%	54/206
27)	03-0B27-0011-0000-0000	West Virginia Department of Transportation, Division of Highways	SWN Production Company, LLC	20%	55/301
28)	03-0B27-0010-0000-0000	HFS Limited Liability Company	Chesapeake Appalachia, LLC SWN Production Company, LLC	18.00%	15/394 30/480
29)	Ohio River	State of West Virginia, Department of Commerce, Division of Natural Resources	SWN Production Company, LLC	20%	55/479

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SWN Production Company, LLC  
P O Box 12359  
Spring, Texas 77391-2359  
www.swn.com

July 18, 2018

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

**RE:** SWN's proposed New Well: Robert Bone BRK 205H in Brooke County, West Virginia, Drilling under Hukill Run Road, McCord Hill Road, and State Route 67.

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 Hukill Run Road, McCord Hill Road, and State Route 67. 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,

Gary Nuckolls  
Staff Landman  
SWN Production Company, LLC  
PO Box 1300  
Jane Lew, WV 26378

10000 Energy Drive  
Spring, TX 77389-4954

The Right People doing the Right Things,  
wisely investing the cash flow from our  
underlying Assets, will create Value.<sup>®</sup>

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