

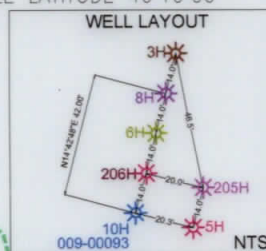
(2000' SCALE) SURFACE HOLE LATITUDE 40°12'30" 2969'

(2000' SCALE) BOTTOM HOLE LATITUDE 40°10'00" 9734'



www.jhacompanies.com

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



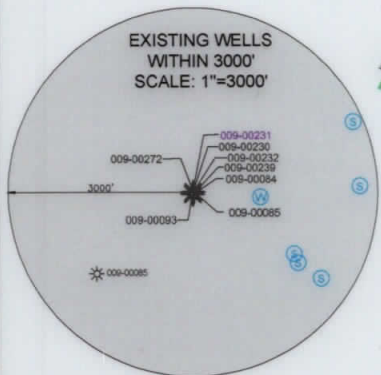
NOTES ON SURVEY

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 250 FEET OF PROPOSED WELL.

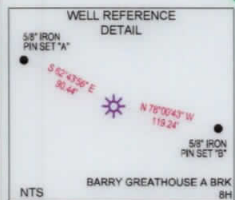
GRID NORTH  
UTM, NAD83 DATUM, ZONE 17, US FT

(2000' SCALE) BOTTOM HOLE LONGITUDE: -80°35'00" 2224'  
(2000' SCALE) SURFACE HOLE LONGITUDE: -80°37'30" 6117'

EXISTING WELLS  
WITHIN 3000'  
SCALE: 1"=3000'



WELL REFERENCE  
DETAIL



<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449083.44 EASTING: 531015.71
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4448597.81 EASTING: 531394.54
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4445655.53 EASTING: 532517.41
<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449083.44 EASTING: 531015.71
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4448656.41 EASTING: 531370.15
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4445656.71 EASTING: 532521.70

LINE	BEARING	DISTANCE
L1	S14°50'10"W	1097.91'
L2	N34°10'17"W	1134.88'

3000 0 3000

GRAPHIC SCALE IN FEET



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

**SWN** Production Company, LLC **SWN** Production Company™

(+) 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 ELEVATION: GRADE GPS (NAVD 88, US FT)

BARRY GREATHOUSE A BRK

OPERATOR'S WELL #: 8H

API WELL #: 47 009 00231

STATE COUNTY PERMIT

WELL TYPE: OIL  WASTE DISPOSAL  PRODUCTION  DEEP  GAS  LIQUID INJECTION  STORAGE  SHALLOW

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1,136.1'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: TILTONSVILLE, OH & BETHANY, WV

SURFACE OWNER: BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE ACREAGE: ±229.00

OIL & GAS ROYALTY OWNER: RAYLE COAL COMPANY ACREAGE: ±229.00

DRILL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION

CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) AS-DRILLED

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,911" TVD 16,959' 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

<b>LEGEND:</b>	<b>REVISIONS:</b>	<b>DATE:</b> 11-18-2019
● EXISTING BOTTOM HOLE		<b>API NO:</b> 47-009-00231
⊙ EXISTING / PRODUCING WELLHEAD		<b>DRAWN BY:</b> R.GRIMES
LPL* EXISTING LANDING POINT LOCATION		<b>SCALE:</b> 1" = 3000'
● PROPOSED SURFACE HOLE / BOTTOM HOLE		<b>DRAWING NO:</b> 2017-422
LPL* PROPOSED LANDING POINT LOCATION		<b>WELL LOCATION PLAT</b>
— ACCESS ROAD		
— PUBLIC ROAD		
— FLOOD PLAIN		
— LEASE BOUNDARY		
— ASDRILLED PATH		
— PROPOSED PATH		

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE (S) RAYLE COAL COMPANY (R)	03-B41-0082.0000
TRACT	SURFACE OWNER	TAX PARCEL
2	MARY R. WOOD	03-B41-0084.0000
3	DANNY GENE BRITT & VIRGINIA MARGARET BRITT	03-B46-0027.0000
4	JAMES B. & MELISSA D. GEBHARDT	03-B46-0029.0000
5	TERRY CRUPE	03-B46-0033.0000
6	ALFRED E. SCHELL	03-B46-0037.0000
7	ALFRED E. SCHELL	03-B46-0039.0000
8	JEANETTE MARIE KERNS, MELISSA KERNS & CHRISTINA KERNS	03-B46-0040.0001
9	MY THREE SONS HOLDINGS, LP	03-B46-0024.0000
10	JEANETTE MARIE KERNS	04-R6-8.1
11	MELISSA ANN KERNS	04-R6-8
12	FLORENCE E. WHITE & JOHN M. WHITE	04-R6-10
13	MARTHA HERCULES	04-R6-7
14	WINDSOR COAL COMPANY	04-R6-12
15	WAYNE E. SHOOK	04-R6-15
16	SUZANNE D. & CHAD D. CLUTTER	04-R6-14.5
17	CHARLES B. DAVIS, III & ELIZABETH MARIE DAVIS	04-R6-14.3
18	CHARLES B. DAVIS, III & ELIZABETH MARIE DAVIS	04-R6-14.4
19	CHARLES B. DAVIS, III & ELIZABETH MARIE DAVIS	04-R6-14.2
20	RANDALL L. CRABTREE & CYNTHIA S. KOVALSKI	04-R6-27.3

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	ROBERT J. MILLER JR. & LINDA MILLER	03-B41-0047.0000
B	JAY GLEN COLLINS	03-B41-0080.0000
C	KATHY LYNN & MICHAEL MAYHEW, ET AL	03-B42-0027.0000
D	DALE T. & MARY R. WOOD	03-B46-0046.0000
E	BETSY D. TUSTIN	03-B47-0002.0001
F	ERIC J. TUSTIN	03-B46-0029.0001
G	RICHARD A. HARRIS	03-B46-0034.0000
H	DONNA LEE KLAGES	03-B46-0036.0000
I	DONNA LEE KLAGES	03-B46-0035.0000
J	WILLARD ARDEN, JR. & CANDACE JEAN HARRIS	03-B46-0038.0000
K	WILLARD ARDEN, JR. & CANDACE JEAN HARRIS	03-B46-0040.0000
L	JEFFREY A. HORNICK	03-B47-0005.0000
M	MARK A. WADE & MARY IVA SMITH	03-B47-0004.0000
N	MARK A. WADE & MARY IVA WADE-SMITH	04-R6-11
O	DALE M. SIMPSON	03-L1-2
P	DALE M. SIMPSON	04-R6-13
Q	CHARLES B. DAVIS, JR. (L/E) & MADONA DAVIS	04-R6-14
R	SUZANNE D. & CHAD D. CLUTTER	04-R6-14.6
S	DALE M. SAMPSON	04-R6-32
T	GREGORY L. CULLEY	04-R6-33.1
U	GREGORY L. & LINDA L. CULLEY; BETTY CULLEY (L/E)	04-R6-33
V	TOWN OF WEST LIBERTY	09-WL9-1
W	DUANE RUPERT & LAURIE RUPERT	04-R6-31
X	DUANE RUPERT & LAURIE RUPERT	04-R6-30
Y	CHARLES J. ROBINSON (L/E) & RANDALL CRABTREE	04-R6-27.2
Z	RANDALL CRABTREE	04-R6-28.8
AA	NICOLE L. CARENBAUER	04-R6-28.6
AB	WINDELL H. GOFF, II & GLADYS GOFF	04-R6-27.1
AC	SHORT CREEK COAL COMPANY	04-R6-17.4
AD	SHORT CREEK COAL COMPANY	04-R6-17.3
AE	GARY WAYNE HERCULES	04-R6-16
AF	GARY & MARTHA HERCULES	04-R6-6
AG	GARY & MARTHA HERCULES	04-R6-5
AH	GARY & MARTHA HERCULES	04-R6-6.1
AI	ULRICH UTT	04-R6-24.2
AJ	ULRICH UTT	04-R6-24.1
AK	GARY & MARTHA HERCULES	04-R6-4
AL	MARC SEAMON	04-R6-2
AM	BRUCE D. BONAR & WILLIAM BONAR	03-B46-0020.0000
AN	TRACY GILBERT	03-B46-0023.0001
AO	BUSTER T. & BARBARA A. BLAKE	03-B46-0023.0000
AP	GARY L. & MARGIE WILLIAMS	03-B46-0025.0000
AQ	REBECCA FRIEND	03-B46-0026.0000
AR	GRACE FRIEND	03-B46-0030.0000
AS	CRAIG ALLEN PITNER	03-B46-0031.0000
AT	CHARLES P. GEBHARDT, FREIDA GEBHARDT & JAMES GEBHARDT	03-B46-0032.0000
AU	RACHEL R. BAXTER	03-B46-0028.0000
AV	TRACY GILBERT	03-B46-0022.0000
AW	TRACY GILBERT	03-B46-0022.0001
AX	OHIO COUNTY BOARD OF COMMISSIONERS	04-R5-10
AY	STACY ANN HAYMAN & PATRICIA ANN GREATHOUSE	03-B46-0041.0000
AZ	BARRY L. & PATRICIA A. GREATHOUSE	03-B41-0083.0000
BA	FREDERICK C., JR. & STACEY A. HAYMAN	03-B41-0083.0001
BB	BARRY L. & PATRICIA A. GREATHOUSE	03-B41-0032.0000

REVISIONS:

COMPANY:

**SWN**  
Production Company, LLC

**SWN** *R-V+0*  
Production Company™

OPERATOR'S BARRY GREATHOUSE A BRK

WELL #: 8H

DISTRICT:  
BUFFALO

COUNTY:  
BROOKE

STATE:  
WV

DATE: 11-18-2019  
API NO: 47-009-00231  
DRAWN BY: R.GRIMES  
SCALE: N/A  
DRAWING NO: 2017-422  
WELL LOCATION PLAT

PROPERTY NUMBER 2501166096  
PAD ID 3001156331