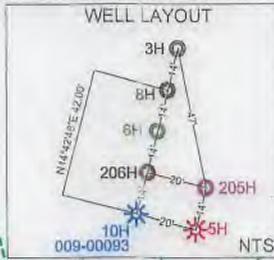




www.jhacompanies.com
68011 Vineyard Road
St. Clairsville, Ohio 43950
740-695-6100



NOTES ON SURVEY

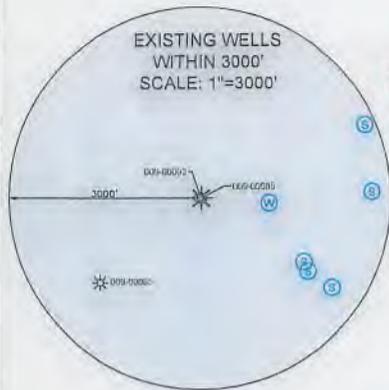
1. COORDINATE SYSTEM IS UTM NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
2. SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND/OR FIELD LOCATIONS.
3. THIS PLAT DOES 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.

01/04/2019

GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US

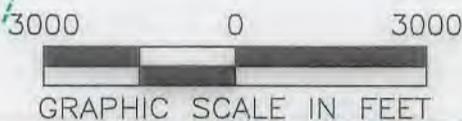
(2000' SCALE) BOTTOM HOLE LONGITUDE: -80°35'00" 6120'

(2000' SCALE) SURFACE HOLE LONGITUDE: -80°37'30" 6120'



SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449083.44 EASTING: 531015.71
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4448656.41 EASTING: 531370.15
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4445887.60 EASTING: 532433.68

LINE	BEARING	DISTANCE
L1	S14°50'13"W	1097.90'
L2	N34°10'18"W	1134.90'



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 *[Signature]* 9/25/18



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

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

BARRY GREATHOUSE A BRK
OPERATOR'S WELL #: 8H
API WELL #: 47 STATE 009 COUNTY 00231 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)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,924' TVD 16,166.4' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY
ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300
CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	REVISIONS:	DATE: 09-25-2018
● PROPOSED SURFACE HOLE / BOTTOM HOLE	— SURVEYED BOUNDARY	
☀ EXISTING / PRODUCING WELLHEAD	— DRILLING UNIT	
LPL ✖ LANDING POINT LOCATION	— LEASE BOUNDARY	
⊙ EXISTING WATER WELL	— PROPOSED PATH	
⊙ EXISTING SPRING		
		DRAWN BY: D. REED
		SCALE: 1" = 3000'
		DRAWING NO: 2017-422
		WELL LOCATION PLAT

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	DALE T. & MARY R. WOOD	03-B41-0084.0000
3	DANNY GENE & MARGARET VIRGINIA 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. & DONNA L. SCHELL	03-B46-0037.0000
7	ALFRED E. & DONNA L. SCHELL	03-B46-0039.0000
8	MELISSA KERNS & CHRISTINA A. KERNS (L/E)	03-B46-0040.0001
9	MY THREE SONS HOLDINGS, LP	03-B46-0024.0000
10	TIMOTHY E. & J.M. 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

01/04/2019

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	CHARLES & ELIZABETH M. DAVIS	04-R6-14.2
T	RANDALL L. CRABTREE & CYNTHIA S. KOVALSKI	04-R6-27.3
U	WINDELL H. GOFF, II & GLADYS GOFF	04-R6-27.1
V	SHORT CREEK COAL COMPANY	04-R6-17.4
W	SHORT CREEK COAL COMPANY	04-R6-17.3
X	GARY WAYNE HERCULES	04-R6-16
Y	GARY & MARTHA HERCULES	04-R6-6
Z	MARTHA HERCULES	04-R6-7
AA	ULRICH UTT	04-R6-24.2
AB	ULRICH UTT	04-R6-24.1
AC	GARY & MARTHA HERCULES	04-R6-4
AD	MARC SEAMON	04-R6-2
AE	BRUCE D. BONAR (½) & WILLIAM BONAR (½)	03-B46-0020.0000
AF	TRACY GILBERT	03-B46-0023.0001
AG	BUSTER T. & BARBARA A. BLAKE	03-B46-0023.0000
AH	GARY L. & MARGIE WILLIAMS	03-B46-0025.0000
AI	REBECCA FRIEND	03-B46-0026.0000
AJ	GRACE FRIEND	03-B46-0030.0000
AK	CRAIG ALLEN PITNER	03-B46-0031.0000
AL	CHARLES P. GEBHARDT, FREIDA GEBHARDT & JAMES GEBHARDT	03-B46-0032.0000
AM	RACHEL R. BAXTER	03-B46-0028.0000
AN	TRACY GILBERT	03-B46-0022.0000
AO	TRACY GILBERT	03-B46-0022.0001
AP	OHIO COUNTY BOARD OF COMMISSIONERS	04-R5-10
AQ	STACY ANN GREATHOUSE & PATRICIA ANN GREATHOUSE	03-B46-0041.0000
AR	BARRY L. & PATRICIA A. GREATHOUSE	03-B41-0083.0000
AS	FREDERICK C., JR. & STACEY A. HAYMAN	03-B41-0083.0001
AT	BARRY L. & PATRICIA A. GREATHOUSE	03-B41-0032.0000

REVISIONS:

COMPANY:

SWN
Production Company, LLC

SWN ^{R₂ V⁺}_A
Production Company™

OPERATOR'S BARRY GREATHOUSE A BRK

DATE: 09-25-2018

WELL #: 8H

DRAWN BY: D. REED

DISTRICT:
BUFFALO

COUNTY:
BROOKE

STATE:
WV

SCALE: N/A

DRAWING NO: 2017-422

WELL LOCATION PLAT

PROPERTY NUMBER 2501166096

PAD ID 3001156331