

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
- FLOOD PLAIN
- ACCESS ROAD
- - - PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- - - - - LEASE BOUNDARY
- PROPOSED PATH
- ASDRILLED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: STATE OF WV DNR B BRK	WELL # 6H	SERIAL # XXXX
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	COUNTY - CODE BROOKE - 009	DISTRICT: CROSS CREEK	API NO: 47-009-00247
SURFACE OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR	USGS 7 1/2 QUADRANGLE MAP NAME: STUEBENVILLE EAST, OH		

LATITUDE: 40°22'30" SURFACE HOLE

7737'

LATITUDE: 40°20'00" BOTTOM HOLE

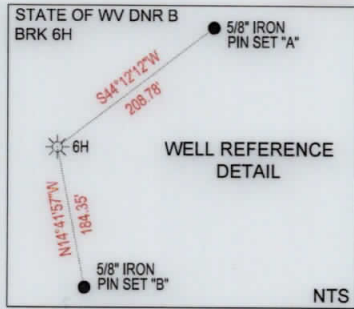
5477'



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.

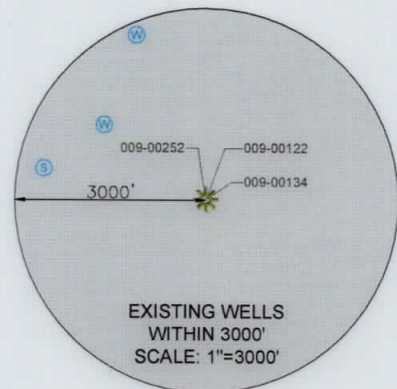


LINE	BEARING	DISTANCE
L1	S05°40'24"W	718.39'
L2	S34°07'28"E	1292.69'

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4465690.92 EASTING: 540108.90
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4465565.59 EASTING: 539920.54
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4463828.05 EASTING: 540808.03
SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4465690.92 EASTING: 540108.90
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4465576.03 EASTING: 539923.05
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4463825.74 EASTING: 540808.17

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)

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

STATE OF WV DNR B BRK
OPERATOR'S WELL #: 6H
API WELL #: 47 009 00247
STATE COUNTY PERMIT

WELL TYPE: OIL WASTE DISPOSAL PRODUCTION DEEP GAS LIQUID INJECTION STORAGE SHALLOW
 WATERSHED: UPPER OHIO NORTH
 DISTRICT: CROSS CREEK COUNTY: BROOKE ELEVATION: 1201.1'
 SURFACE OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR QUADRANGLE: STEUBENVILLE EAST, OH
 OIL & GAS ROYALTY OWNER: STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DNR ACREAGE: ±169.43
 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: 5,779' TVD 12,524' 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:

	PROPOSED SURFACE HOLE / BOTTOM HOLE		SURVEYED BOUNDARY
	EXISTING / PRODUCING WELLHEAD		LEASE BOUNDARY
	LPL*		ASDRILLED PATH
	EXISTING WATER WELL		PROPOSED PATH
	EXISTING SPRING		

REVISIONS:	DATE:
	04-10-2019
	API NO: 47-009-00247
	DRAWN BY: D. REED
	SCALE: 1" = 2000'
	DRAWING NO: 2017-541
	WELL LOCATION PLAT

3471'



LONGITUDE: -80°30'00" BOTTOM HOLE

12449'

LONGITUDE: -80°30'00" SURFACE HOLE

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION (S/R)	4-CC16-019.00	169.43
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
2	DANNY D. TICE & MARCIA TICE	4-CC16-016.00	6.24
3	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	4-CC16-022.00	74.032
4	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	4-CC16-017.00	1.19
5	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	4-CC16-021.00	0.19
6	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	4-CC16-023.01	117.720
7	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	4-CC16-023.00	80.100
8	STATE OF WEST VIRGINIA, BUREAU OF COMMERCE, DIVISION OF NATURAL RESOURCES, PUBLIC LAND CORPORATION FOR THE USE AND BENEFIT OF THE WILDLIFE RESOURCES SECTION	4-CC16-024.00	74.000

ADJOINING OWNERS TABLE			
TRACT	SURFACE OWNER	TAX PARCEL	ACRES
A	MARGARET FRESHWATER	04-C12K-0080.0000	36.01
B	DEBORAH JANE HAMILTON	04-C12K-0078.0000	109.82
C	ARTHUR C. MCDERMITT, JR.	380-008-00-00-0007-01	209.46
D	WEST VIRGINIA ST OF BUREAU OF COMM DIV OF NAT RES PB LD CORP	04-CC16-0018.000	2.16
E	WEST VIRGINIA ST OF BUREAU OF COMM DIV OF NAT RES PB LD CORP	04-CC16-0020.0000	1.81
F	ARTHUR C. MCDERMITT, JR.	380-008-00-00-0007-03	61.417
G	PENNWEIR CONSTRUCTION CO.	380-014-00-00-0009-00	6.5
H	PENNWEIR CONSTRUCTION CO.	380-014-00-00-0008-00	61.0
I	PENNWEIR CONSTRUCTION CO.	380-014-00-00-0007-00	16.0
J	ST OF WV DEPT OF COMMERCE NAT RESOURCES	04-CC20-0030.0000	59.12
K	ST OF WV DEPT OF COMMERCE NAT RESOURCES	04-CC20-0027.0000	71.687
L	ST OF WV DEPT OF COMMERCE NAT RESOURCES	04-CC20-0026.0000	3.90
M	ST OF WV DEPT OF COMMERCE NAT RESOURCES	04-CC20-0046.0000	2.90
N	STATE OF WV BUREAU COMM-DIV NR PUBLIC LAND CORP	04-CC16-0008.0001	123.30
O	WEST VIRGINIA ST OF BUREAU DIV OF COMM DIV OF NAT RES PB LD	04-CC16-0011.0000	77.88
P	DONNA K. ROSS (1/2) & WILLIAM J PAULES (1/2)	04-CC16-0014.0000	2.00
Q	DENNIS, SR. & DENNIS, JR. MOLNAR	04-CC16-0013.0000	6.50
R	TIMOTHY BRIAN CUNNINGHAM	04-CC16-0015.0000	1.22
S	DAVID A. & GERALDINE DODD	04-CC12-0041.0000	0.47
T	JOHN D. & KAREN DUFFIELD	04-CC12-0040.0000	0.417
U	JOHN D. & KAREN DUFFIELD	04-CC12-0039.0000	0.486
V	LARRY G., SR. & NORA LOU DODD	04-CC12-0038.0000	1.73
W	RITA K. THOMAS	04-CC12-0055.0000	10.50

REVISIONS:	COMPANY:		 	
	OPERATOR'S			STATE OF WV DNR B BRK
	WELL #:			6H
	DISTRICT:	COUNTY:		STATE:
	CROSS CREEK	BROOKE		WV
			DATE: 04-10-2019	
			API NO: 47-009-00247	
			DRAWN BY: D. REED	
			SCALE: N/A	
			DRAWING NO: 2017-541	
			WELL LOCATION PLAT	