



RETTEW Associates, Inc.
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SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,426,810.708
EASTING: 531,105.246

LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,426,676.766
EASTING: 531,885.235

BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,424,409.653
EASTING: 532,929.699

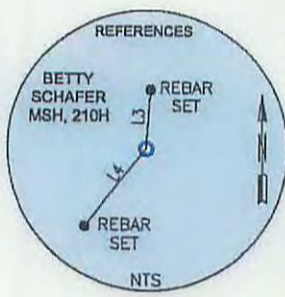
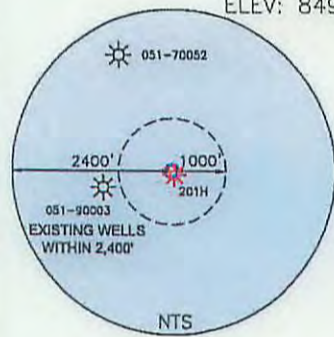
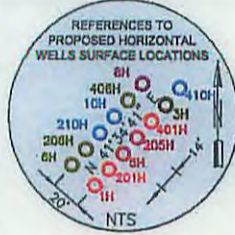
GRID NORTH
UTM, NAD83 DATUM, ZONE 17, US FT

LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 52°19'50" W	775.67'	SHL TO LANDMARK	
L2	S 15°38'31" E	2705.27'	SHL TO LANDMARK	
L3	N 06°31'10" E	103.86'	SHL TO REF. PNT.	1/2" Ø REBAR SET
L4	S 34°55'18" W	228.35'	SHL TO REF. PNT.	1/2" Ø REBAR SET
L5	S 80°15'35" E	2596.35'	SHL TO LP	
L6	S 24°44'08" E	8189.41'	LP TO BHL	
L7	S 44°14'32" E	378.53'	ASDRILLED BORE	
L8	S 32°46'11" E	264.89'	ASDRILLED BORE	
L9	S 23°26'52" E	633.84'	ASDRILLED BORE	
L10	S 23°25'13" E	2338.84'	ASDRILLED BORE	
L11	S 26°06'00" E	368.94'	ASDRILLED BORE	
L12	S 23°05'12" E	1980.11'	ASDRILLED BORE	
L13	S 19°49'44" E	378.70'	ASDRILLED BORE	
L14	S 24°05'02" E	1419.66'	ASDRILLED BORE	
L15	S 26°06'19" E	189.99'	ASDRILLED BORE	
L16	S 23°18'30" E	215.93'	ASDRILLED BORE	

Latitude: 40°00'00"

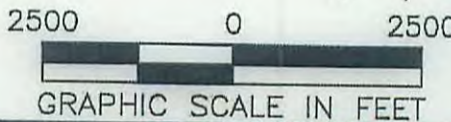
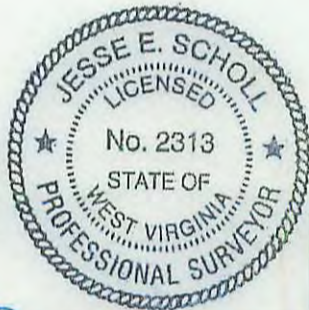
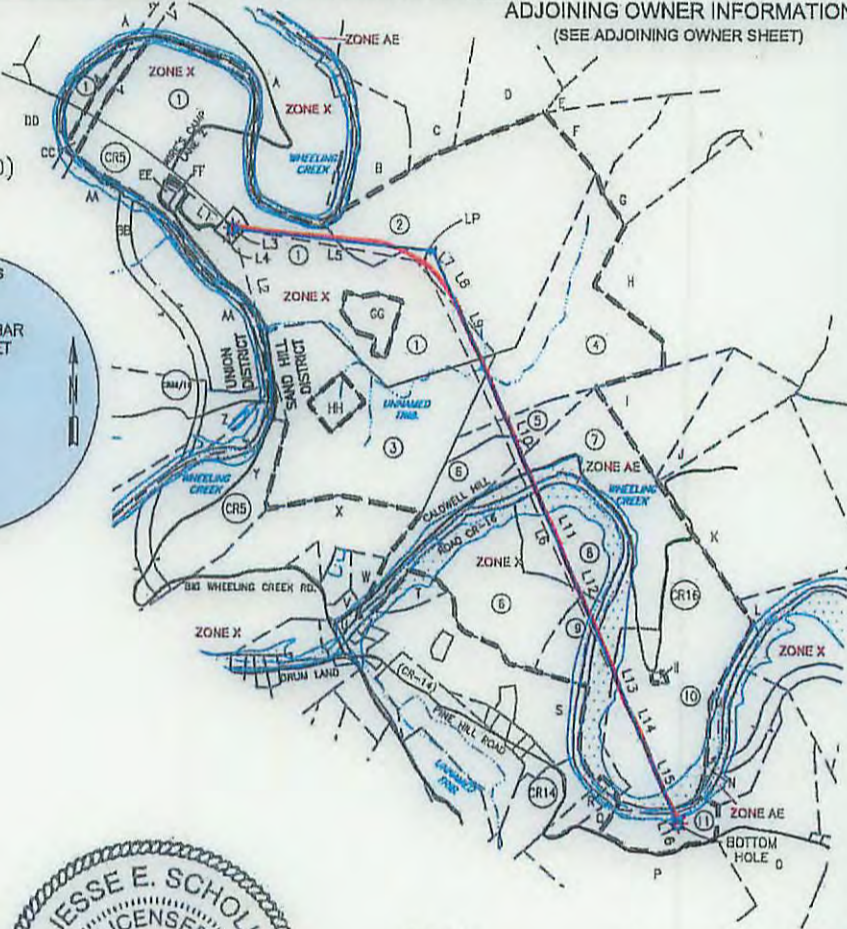
Longitude: 80°37'30"

TRACT	SURFACE OWNER	TAX PARCEL	ACRES
1	BETTY JANE SCHAFER, LIFE ESTATE; ROY ALVIN SCHAFER, REMAINDERMAN; EDWARD J. SCHAFER, REMAINDERMAN	12-09-00220000	±205.06
2	CHARLES B. AND CARLA S. FISHER	12-09-00200000	±132.66
3	CLIVE P. GROSCHOFF	12-10-00010002	±85.43
4	CALVIN C. MERINAR	12-09-00190000	±85.50
5	CALVIN C. MERINAR	12-10-00070000	±13.40
6	GEETA	15-01-00020000	±82.91
7	KENNETH L. MERINAR ET AL.	12-10-00080000	±90.09
8	DOUGLAS FINTEL	15-01-00020001	±41.30
9	ROBERT E. AND DEBRA A. BAUER	15-01-00020002	±10.79
10	GLENN M. HICKEY	12-10-00080000	±29.03
11	KENNETH L. MERINAR ET AL.	15-01-00060003	±13.96



SWN PRODUCTION COMPANY, LLC
"BETTY SCHAFER MSH, 210H"
SURFACE HOLE
ELEV: 849.00' (AS-DRILLED)

ADJOINING OWNER INFORMATION
(SEE ADJOINING OWNER SHEET)



- NOTES ON SURVEY**
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
 - SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
 - THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
 - NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
 - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
 - NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
 - NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

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. 2313

COMPANY: **SWN** Production Company, LLC



(+) 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)

BETTY SCHAFER MSH
OPERATOR'S WELL #: 210H
API WELL #: 47 STATE 51 COUNTY 01776 PERMIT

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

WATERSHED: MIDDLE OHIO NORTH ELEVATION: ±849.00 (AS-DRILLED)

DISTRICT: SAND HILL COUNTY: MARSHALL QUADRANGLE: MOUNDSVILLE, WV-OH

SURFACE OWNER: SCHAFER, BETTY JANE ACREAGE: ±205.06

OIL & GAS ROYALTY OWNER: SCHAFER, BETTY JANE ACREAGE: ±205.06

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: 6,097' TVD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL
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:
● PROPOSED SURFACE HOLE / BOTTOM HOLE	— PERMITTED DHP	12-29-2015
⊙ EXISTING/PRODUCING WELLHEAD/BOTTOM HOLE	- - - TIE LINE	
⊗ ABANDONED WELL	- - - LEASE BOUNDARY	
⊕ PLUGGED & ABANDONED WELL	- - - AS-DRILLED DHP	
△ CUT CONDUCTOR	- - - ABANDONED PATH	