

# RETTEW

RETTEW Associates, Inc.  
 27 Travato Street, Suite 101  
 Bridgeport, WV 26330  
 Phone (800) 738-8395  
 Email: rettew@rettew.com  
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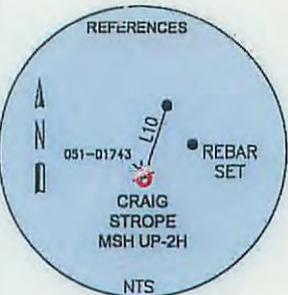
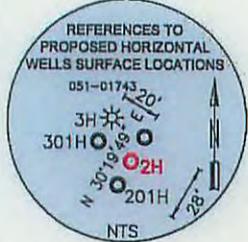
<b>SURFACE HOLE LOCATION:</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,20,152.381 EASTING: 536,000.812
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,420,263.283 EASTING: 535,645.497
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,422,403.635 EASTING: 534,845.072

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

LINE	BEARING	DISTANCE	DESCR'PT	MONUMENT
L1	S 67°03'00" E	738.82'	SHL TO GIS BNDY.	
L2	S 38°18'08" E	1120.83'	SHL TO GIS BNDY.	
L3	N 71°56'07" E	593.56'	SHL TO UNIT BNDY.	
L4	S 28°05'01" W	996.18'	LP TO UNIT BNDY.	
L5	N 47°39'56" E	150.26'	BHL TO UNIT BNDY.	
L6	S 69°07'28" W	1499.78'	BHL TO UNIT BNDY.	
L7	N 72°39'57" W	1221.19'	SHL TO 1" P	
L8	N 20°30'15" W	7497.11'	LP TO BHL	
L9	N 55°22'01" E	241.66'	SHL TO REF. PNT.	1/2" #4 REBAR SET
L10	N 17°22'22" E	311.21'	SHL TO REF. PNT.	1/2" #4 REBAR SET

BHL

BHL Longitude: 80°35'00"  
 2,664'  
 10,190'  
 Longitude: 80°32'30"

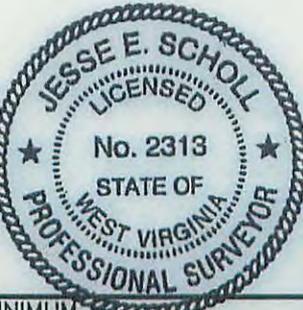


### NOTES ON SURVEY

- 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



(+) 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)

COMPANY: **SWN** Production Company, LLC

CRAIG STROPE UP MSH

OPERATOR'S WELL #: 2H

API WELL #: **47** STATE **51** COUNTY **01877H6A** PERMIT

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

WATERSHED: UPPER WHEELING CREEK ELEVATION: ±1278.80

DISTRICT: WEBSTER COUNTY: MARSHALL COUNTY QUADRANGLE: MAJORSVILLE, WV-PA

SURFACE OWNER: RUSSELL W. STROPE ACREAGE: ±53.00

OIL & GAS ROYALTY OWNER: CRAIG D. & RUSSELL W. STROPE ACREAGE: ±622.16

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

CONVERT  PLUG & ABANDON  CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY) **04/01/2016**

TARGET FORMATION: UPPER POINT PLEASANT, UTICA ESTIMATED DEPTH: 11,767'TVD 19,683' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL

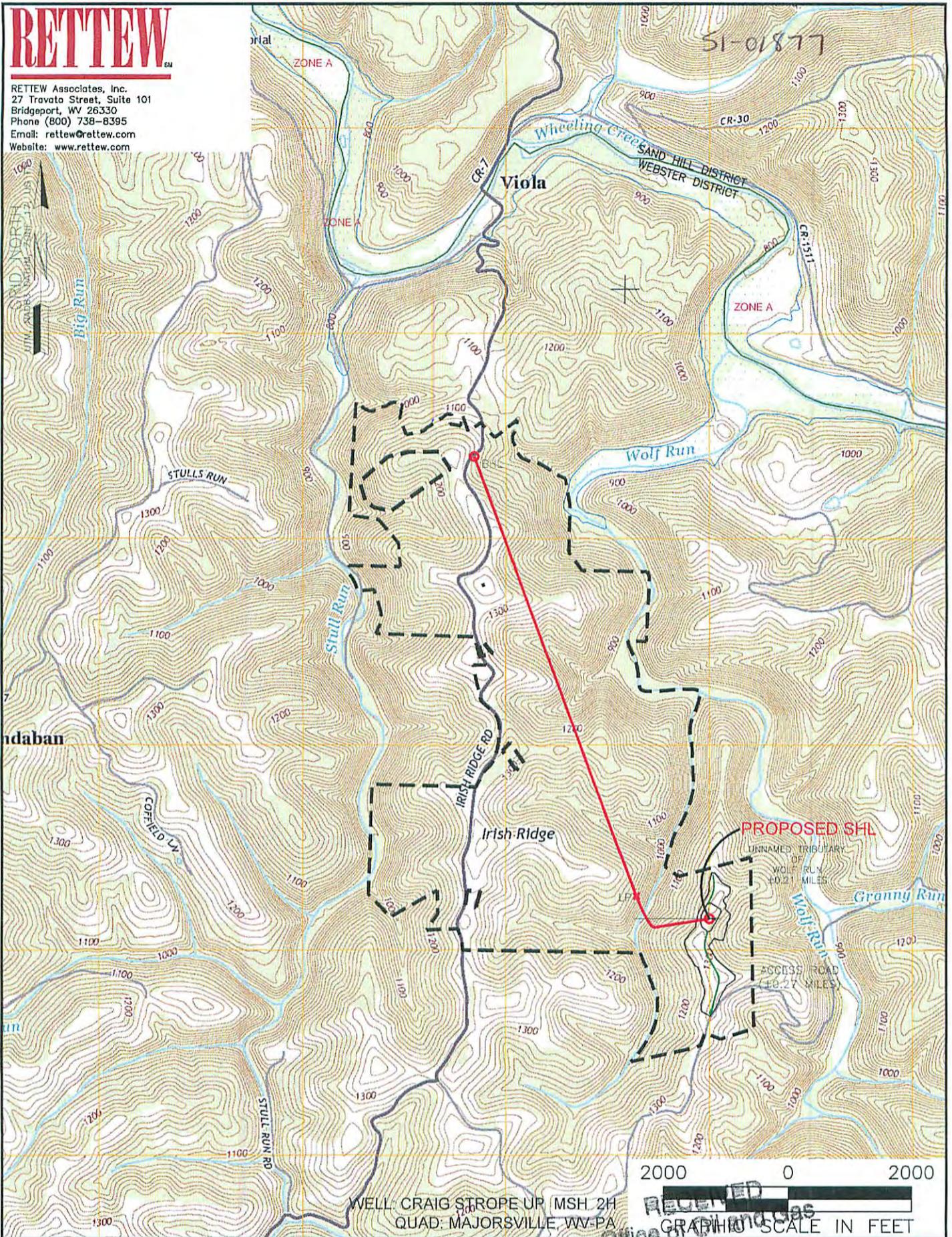
ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300

CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

<b>LEGEND:</b>	----- TIE LINE	REVISIONS:	DATE: 12-22-2015
⊙ PROPOSED SURFACE HOLE / BOTTOM HOLE	--- DRILLING UNIT		
⊙ EXISTING / PRODUCING WELLHEAD	--- LEASE BOUNDARY		
⊙ ABANDONED WELL	--- DHP BUFFER		
⊙ PLUGGED & ABANDONED WELL	--- UTICA DHP		
⊙ CUT CONDUCTOR			
			DRAWN BY: B.HERMAN
			SCALE: 1" = 2500'
			DRAWING NO: 087569037
			WELL LOCATION PLAT

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NAME AND DISTANCE TO THE NEAREST STREAM:  
UN NAMED TRIBUTARY OF WOLF RUN IS LOCATED ±0.21 MILES WEST OF THE CENTER OF THE DRILL PAD.

STREAM CROSSING COORDINATES (NAD 83):  
NO NEW CROSSINGS.

COMPANY:  
**SWN** Production Company, LLC  
DEC 30 2015  
Office of the State Auditor  
RECEIVED  
SWN Production Company™

WELL RESTRICTIONS:  
WELL PAD, LOD, & E & S CONTROL FEATURES TO PERENNIAL STREAM, LAKE, POND, RESERVOIR OR WETLAND: >100 FEET  
WELL PAD, LOD, & E & S CONTROL FEATURES TO NATURALLY PRODUCING TROUT STREAM: >300 FEET  
WELL PAD, LOD, & E & S CONTROL FEATURES TO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY: >1000 FEET  
WELL SHL TO EXISTING WATER WELL OR DEVELOPED SPRING: >250 FEET  
CENTER OF PAD TO OCCUPIED DWELLING STRUCTURE: >625 FEET  
CENTER OF PAD TO AGRICULTURAL BUILDINGS LARGER THAN 2500 SQ FT: >625 FEET

OPERATOR'S  
**Craig Strope Up MSH**  
WELL #:  
LOCATION:  
WEBSTER DISTRICT,  
MARSHALL COUNTY, WEST VIRGINIA

FEMA FLOOD INFORMATION:  
BY GRAPHIC PLOTTING ONLY FEMA FIRM INCORPORATED AREA OF MARSHALL COUNTY, WEST VIRGINIA; MAP NUMBER 54051C0125E; EFFECTIVE DATE: SEPTEMBER 25, 2009.  
NO FLOOD ZONES.

SURFACE HOLE LOCATION:  
GEOGRAPHIC (NAD83):  
LATITUDE: 39.930716°  
LONGITUDE: -80.578672°  
BOTTOM HOLE LOCATION:  
GEOGRAPHIC (NAD83):  
LATITUDE: 39.951047°  
LONGITUDE: -80.592077°

LEGEND:  
● PROPOSED SURFACE HOLE / BOTTOM HOLE  
⊗ EXISTING / PRODUCING WELLHEAD  
⊗ ABANDONED WELL  
⊗ PLUGGED & ABANDONED WELL  
△ CUT CONDUCTOR  
--- LEASE BOUNDARY  
--- UT/CA DHP  
--- ACCESS ROAD  
--- COUNTY ROAD

REVISIONS:  
DATE: 12-22-2015  
DRAWN BY: B.HERMAN  
SCALE: 1" = 2000'  
DRAWING NO: 087569037  
TOPOGRAPHIC MAP

04/01/2016