

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 103 - 03053 County WETZEL District PROCTOR
Quad WILEYVILLE Pad Name RIDGETOP LAND VENTURES-WTZ-PAD1 Field/Pool Name VICTORY
Farm name RIDGETOP CAPITAL, LP Well Number RIDGETOP LAND VENTURES WTZ 5H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY LLC
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,390,726.385 Easting 528,031.574
Landing Point of Curve Northing 4,390,910.850 Easting 528,168.354
Bottom Hole Northing 4,391,928.658 Easting 527,061.062

Elevation (ft) 1436' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
SOBM

Date permit issued 04/20/2015 Date drilling commenced 04/21/2015 Date drilling ceased 06/05/2015
Date completion activities began 06/26/2015 Date completion activities ceased 08/10/2015
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 345' (BOTTOM) Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1100' (TOP) Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1348.73 TO 2571.60' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by:
D. Miller 08/2016

WR-35
Rev. 8/23/13

API 47-103 - 03053 Farm name RIDGETOP CAPITAL, LP Well number RIDGETOP LAND VENTURES WTZ 5H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	122'	NEW	J-55/94#		Y
Surface	17.5"	13.375"	837.22'	NEW	J-55/54.5#		Y
Coal	SEE INTERMEDIATE						
Intermediate 1	12.25"	9.625"	3026.24'	NEW	J-55/40#		Y
Intermediate 2							
Intermediate 3							
Production	8.75" TO 8.50"	5.5"	6571'/12880'	NEW	HCP-110/20#		Y
Tubing		2.375"	7899.2'	NEW	L-80		N
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT	19.3	1.19	119	SURFACE	24
Surface	CLASS A	740	15.6	1.19	880.6	SURFACE	8
Coal	SEE INTERMEDIATE						
Intermediate 1	CLASS A	1152	15.6	1.19	1370.88	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	1060/1280	15.6	1.23/1.19	1303.8/1523.2	SURFACE	24
Tubing							

Drillers TD (ft) ^{12880'} _____ Loggers TD (ft) ^{12880'} _____
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) ^{6617'} _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

SURFACE: 8 BOW SPRING CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 BOW SPRING CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 202 CENTRALIZERS (56 BOW SPRINGS, 146 SOLID BODY) - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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RIDGETOP LAND VENTURES WTZ 5**EXHIBIT 1**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG	FORMATION
1	7/10/2015	12,588	12,782	42	MARCELLUS
2	7/11/2015	12,332	12,526	42	MARCELLUS
3	7/12/2015	12,076	12,270	42	MARCELLUS
4	7/12/2015	11,820	12,014	42	MARCELLUS
5	7/13/2015	11,564	11,758	42	MARCELLUS
6	7/13/2015	11,308	11,502	42	MARCELLUS
7	7/13/2015	11,052	11,246	42	MARCELLUS
8	7/13/2015	10,796	10,990	42	MARCELLUS
9	7/14/2015	10,540	10,734	42	MARCELLUS
10	7/14/2015	10,284	10,478	42	MARCELLUS
11	7/14/2015	10,028	10,222	42	MARCELLUS
12	7/15/2015	9,772	9,966	42	MARCELLUS
13	7/15/2015	9,516	9,710	42	MARCELLUS
14	7/15/2015	9,260	9,454	42	MARCELLUS
15	7/15/2015	9,004	9,120	42	MARCELLUS
16	7/16/2015	8,748	8,942	42	MARCELLUS
17	7/16/2015	8,492	8,686	43	MARCELLUS
18	7/16/2015	8,236	8,430	42	MARCELLUS
19	7/16/2015	7,980	8,174	42	MARCELLUS

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RIDGETOP LAND VENTURES WTZ 5

EXHIBIT 2

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/o ther
1	7/10/2015	90	8,559	9,251	4,877	425,688	7,749	
2	7/11/2015	99	8,476	8,978	4,451	501,872	8,782	
3	7/12/2015	99	8,604	9,156	4,864	487,186	7,072	
4	7/12/2015	97	8,345	8,948	4,585	504,099	7,480	
5	7/13/2015	100	8,389	8,818	4,859	499,747	7,195	
6	7/13/2015	100	8,390	9,003	4,809	504,240	7,481	
7	7/13/2015	103	8,133	8,685	4,863	502,242	7,350	
8	7/13/2015	100	7,957	8,233	4,772	506,821	7,300	
9	7/14/2015	101	8,282	8,734	4,961	498,578	7,118	
10	7/14/2015	102	7,795	8,100	4,852	504,982	7,619	
11	7/14/2015	100	8,069	8,679	4,591	490,095	8,479	
12	7/15/2015	100	7,907	8,561	4,835	500,305	7,134	
13	7/15/2015	101	8,150	8,633	4,466	506,187	7,622	
14	7/15/2015	101	7,849	8,135	4,815	500,158	7,428	
15	7/15/2015	100	7,548	8,090	4,859	498,834	7,091	
16	7/16/2015	101	7,590	8,393	5,073	503,998	7,036	
17	7/16/2015	101	7,558	8,921	4,891	501,880	6,984	
18	7/16/2015	101	7,661	7,922	5,100	500,105	7,325	
19	7/16/2015	97	8,427	8,940	5,144	498,626	7,308	
Grand Total		100	8,089	9,251	4,825	9,435,643	141,553	

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**RIDGETOP LAND VENTURES WTZ 5H
EXHIBIT 3**

LITHOLOGY/FORMATION	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, TVD (FT)	TOP DEPTH, MD (FT)	BOTTOM DEPTH, MD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	N.A.	345.00	N.A.	345.00	
Top of Salt Water	1100.00	N.A.	1100.00	N.A.	
Pittsburgh Coal	1347.81	2568.99	1348.73	2571.60	?
Big Injun (ss)	2568.99	3124.49	2571.60	3127.14	?
Berea (siltstone)	3124.49	6728.73	3127.14	6791.10	?
Rhinestreet (shale)	6728.73	7047.85	6791.10	7131.28	?
Cashaqua (shale)	7047.85	7166.18	7131.28	7278.27	?
Middlesex (shale)	7166.18	7253.97	7278.27	7407.10	?
Burket (shale)	7253.97	7280.01	7407.10	7451.35	?
Tully (ls)	7280.01	7299.52	7451.35	7486.95	?
Mahantango (shale)	7299.52	7385.11	7486.95	7721.91	?
Marcellus (shale)	7385.11	N.A.	7721.91	N.A.	?

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/29/2015
Job End Date:	7/16/2015
State:	West Virginia
County:	Wetzel
API Number:	47-103-03053-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	RIDGETOP LAND VENTURES WTZ 5H
Longitude:	-80.68469000
Latitude:	39.67667000
Datum:	NAD27
Federal/Tribal Well:	NO
True Vertical Depth:	7,287
Total Base Water Volume (gal):	5,945,226
Total Base Non Water Volume:	0

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Frac Focus
Chemical Disclosure Registry



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier					
			Water	7732-18-5	100.00000	82.71525	
Sand, White, 40/70	Baker Hughes	Proppant					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		9.44897	
Sand, White, 100 mesh	Baker Hughes	Proppant					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		6.41993	
HCl, 10.1 - 15%	Baker Hughes	Acidizing					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		1.20601	SmartCare Product
MaxPerm-20A, 265 gallon tote	Baker Hughes	Friction Reducer					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.10939	SmartCare Product
Alpha 1427	Baker Hughes	Biocide					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00998	SmartCare Product
Scaletrol 720	Baker Hughes	Scale Inhibitor					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00951	SmartCare Product
Ferotrol 300L	Baker Hughes	Iron Control					

			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00827	SmartCare Product
CI-39	Baker Hughes	Corrosion Inhibitor					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00248	
GBW-5	Baker Hughes	Breaker					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00246	SmartCare Product
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Ingredients in Additive (s) (MSDS and non- MSDS)	Baker Hughes	See Trade Name(s) List					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	15.85593	
			Water	7732-18-5	85.00000	1.10492	
			Hydrochloric Acid	7647-01-0	15.00000	0.18075	
			1-Propanesulfonic acid, 2- methyl-2-[(1-oxo-2-propen-1-yl) amino]-, polymer with 2- propenamide, sodium salt	83446-68-8	60.00000	0.06558	
			Hydrotreated Light Distillate	64742-47-8	30.00000	0.03279	
			Sodium Chloride	7647-14-5	5.00000	0.00556	
			Polyoxyethylene sorbitan monooleate	9005-65-6	5.00000	0.00547	
			Sorbitan, mono-(9Z)-9- octadecenoate	1338-43-8	5.00000	0.00547	
			Oxyalkylated alcohol	78330-21-9	5.00000	0.00547	
			Citric Acid	77-92-9	60.00000	0.00496	
			Ethylene Glycol	107-21-1	45.00000	0.00428	
			Glutaraldehyde	111-30-8	30.00000	0.00299	
			Ammonium Persulphate	7727-54-0	100.00000	0.00246	
			2-Propenoic, Polymer with Sodium Phosphinate, Sodium Salt	71050-62-9	20.00000	0.00190	
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	10.00000	0.00100	
			Oxyalkylated Fatty Acid	61791-002	40.00000	0.00099	
			Formic Acid	64-18-6	30.00000	0.00074	
			Aldehyde	104-55-2	30.00000	0.00074	
			Tar Bases, Quinoline Derivs., Benzyl Chloride-Quaternized	72480-70-7	30.00000	0.00074	
			Quaternary Ammonium Compound	68424-85-1	5.00000	0.00062	
			Ethanol	64-17-5	5.00000	0.00050	
			Calcium Chloride	10043-52-4	5.00000	0.00048	
			Isopropanol	67-63-0	5.00000	0.00012	
			Sulfurized polyolefin	68037-13-8	5.00000	0.00012	
			Potassium Chloride	7447-40-7	1.00000	0.00010	
			Potassium Iodide	7681-11-0	2.00000	0.00005	
			Polyaklylene	7756-94-7	1.00000	0.00002	
			Potassium Acetate	127-08-2	0.50000	0.00001	

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* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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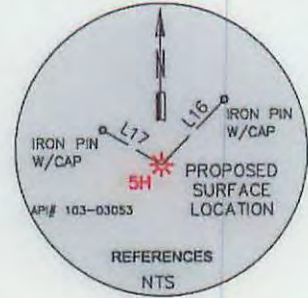
RETTEW Associates, Inc.
27 Travato Street, Suite 101
Bridgeport, WV 26330
Phone (800) 738-8395
Email: rette@rette.com
Website: www.rette.com

SURFACE HOLE LOCATION (SHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,390,726.385 EASTING: 528,031.574
"LANDING POINT" LOCATION (LPL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,390,910.850 EASTING: 528,168.354
BOTTOM HOLE LOCATION (BHL): UTM (NAD83, ZONE 17, METERS): NORTHING: 4,391,928.658 EASTING: 527,061.062

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

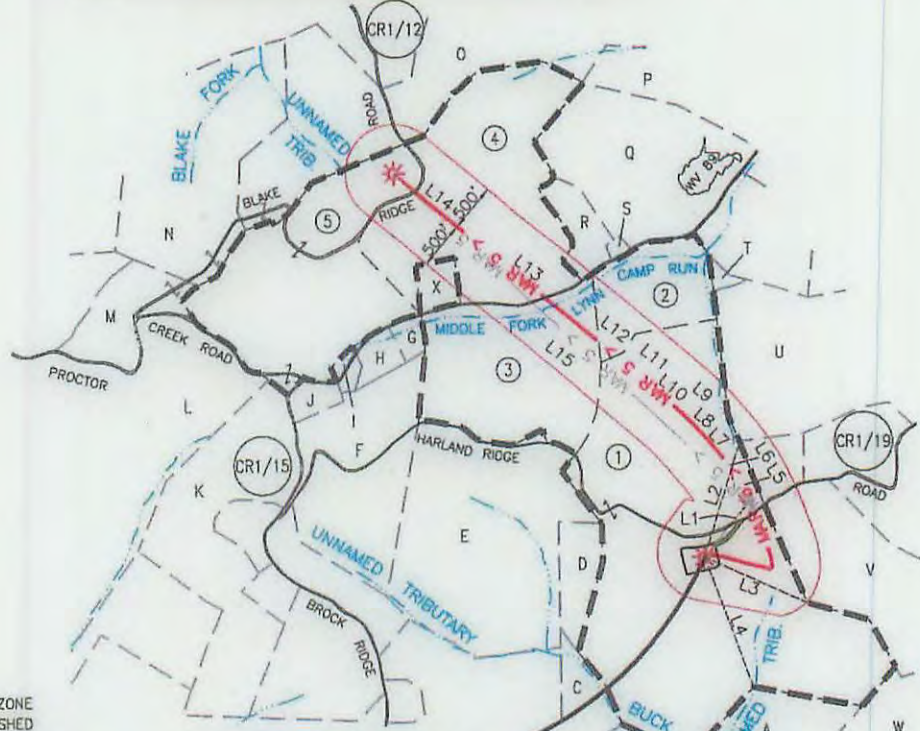
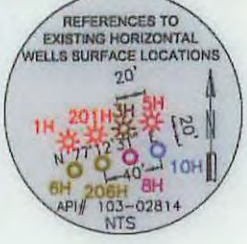
LINE	DESCRIPTION	DISTANCE	DESCRIPTION
L1	N 39°21'00" E	731'	SHL TO LP
L2	N 17°25'47" E	1,234'	SHL TO LANDMARK
L3	S 65°41'43" E	1,158'	SHL TO LANDMARK
L4	S 20°27'14" E	1,423'	SHL TO LANDMARK
L5	N 29°22'18" W	315'	ASDRILLED BORE
L6	N 36°14'24" W	190'	ASDRILLED BORE
L7	N 40°20'07" W	285'	ASDRILLED BORE
L8	N 43°35'12" W	189'	ASDRILLED BORE
L9	N 46°52'12" W	190'	ASDRILLED BORE
L10	N 49°17'04" W	284'	ASDRILLED BORE
L11	N 49°38'50" W	475'	ASDRILLED BORE
L12	N 49°56'35" W	758'	ASDRILLED BORE
L13	N 50°41'24" W	1,327'	ASDRILLED BORE
L14	N 50°13'14" W	949'	ASDRILLED BORE
L15	N 47°24'40" W	4,934'	LP TO BHL
L16	N 43°59'57" W	234'	SHL TO REF. PNT.
L17	N 59°00'15" W	175'	SHL TO REF. PNT.

Latitude: 39°40'00" SHL



Longitude: 80°40'00"

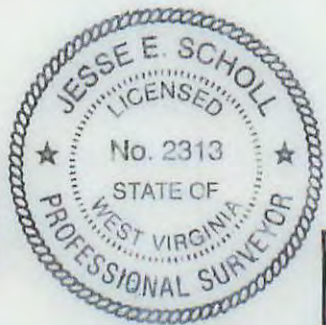
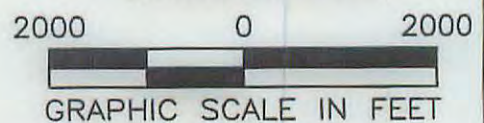
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	RIDGETOP CAPITAL LP. (S)	12-14-25	±173.00
2	MICHAEL E. & VELVA C. LASURE (S)	12-14-14	±25.00
3	JAMES & JORETTA RITCHEA (S)	12-14-4	±62.11
4	RONNIE E. & YVONNE M. WADE (S)	12-14-04.1	±94.37
5	CHESAPEAKE APPALACHIA, LLC (S)	12-14-13	±85.30



SWN PRODUCTION COMPANY, LLC
"RIDGETOP LAND VENTURES WTZ 5H"
SURFACE HOLE
ELEV: 1,436.00' (AS-DRILLED)

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

COMPANY: **SWN** Production Company, LLC

RIDGETOP LAND VENTURES WTZ
OPERATOR'S WELL #: 5H
API WELL #: 47 103
STATE COUNTY PERMIT

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

WATERSHED: LITTLE FISHING CREEK ELEVATION: 1,436.00' (AS-DRILLED)
DISTRICT: PROCTOR COUNTY: WETZEL QUADRANGLE: WILEYVILLE, W.VA.
SURFACE OWNER: RIDGETOP CAPITAL, LP ACREAGE: 173.00±
OIL & GAS ROYALTY OWNER: RIDGETOP CAPITAL, LP ACREAGE: 173.00±

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 **01/08/2016**

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,403' TVD 12,892' 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

LEGEND:	- MAR 5 > -	PROPOSED DHP	REVISIONS:	DATE: 10-26-2015
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	---	TIE LINE	△ ADDED PROPOSED LATERAL 11-05-2015	FILE NO:
⊙ EXISTING / PRODUCING WELLHEAD	---	LEASE BOUNDARY		DRAWN BY: J. ROSS
⊗ ABANDONED WELL	---	500' DHP BUFFER		SCALE: 1" = 2000'
⊗ PLUGGED & ABANDONED WELL	- MAR 5 > -	AS-DRILLED DHP		DRAWING NO: 087569007
△ CUT CONDUCTOR	---	ABANDONED PATH		WELL LOCATION PLAT



ADJOINING OWNERS

RETTEW Associates, Inc.
27 Travato Street, Suite 101
Bridgeport, WV 26330
Phone (800) 738-8395
Email: rettetw@rettetw.com
Website: www.rettetw.com

AS-DRILLED

Table with 4 columns: TRACT, ADJOINING PROPERTY OWNERS, TAX PARCEL, ACRES. Rows A through X listing various owners and their respective parcels and acreages.

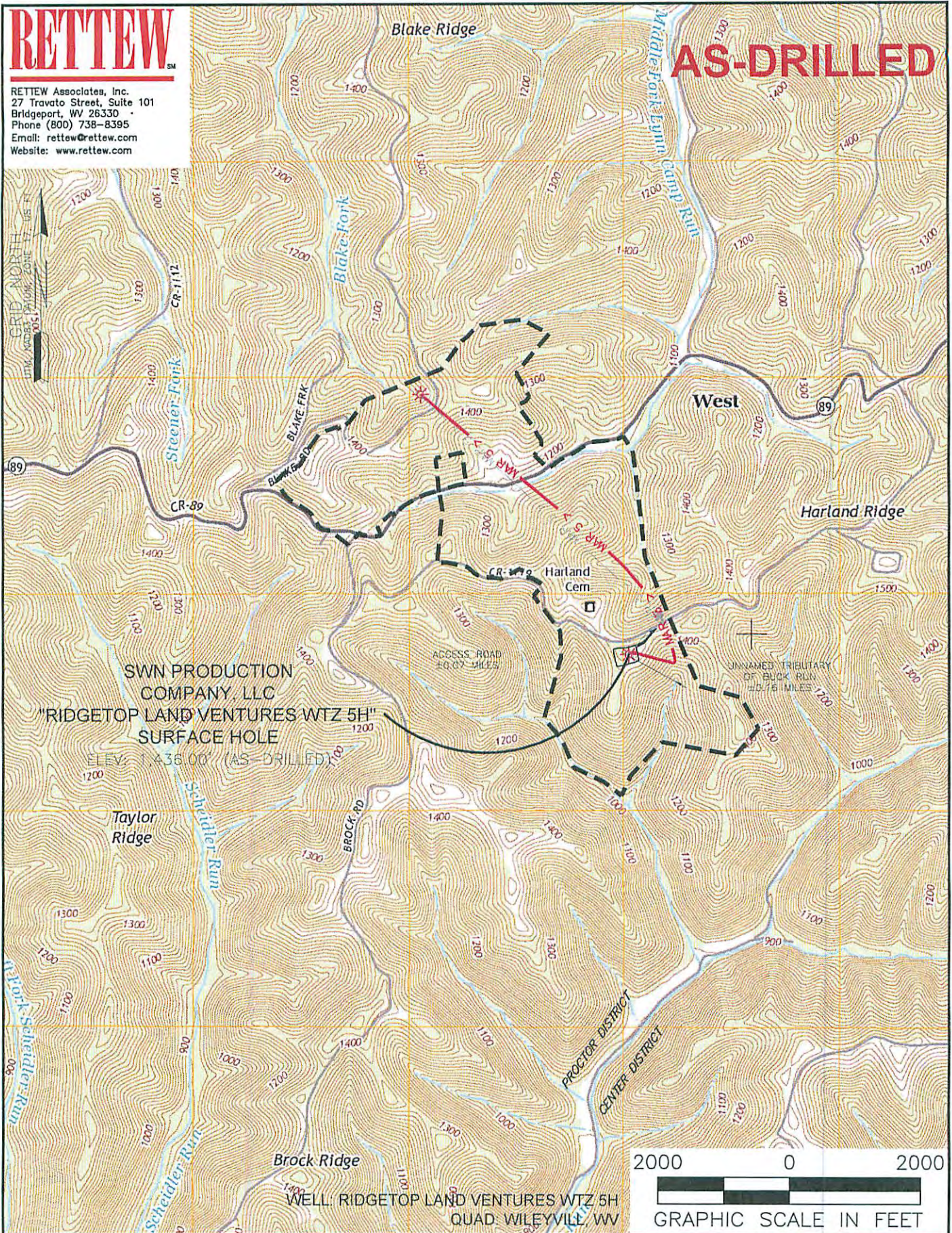
01/08/2016

Table with 2 main sections: REVISIONS and COMPANY/OPERATOR/LOCATION. Includes SWN Production Company logo and details for RIDGETOP LAND VENTURES WTZ, WELL # 5H, and PROCTOR DISTRICT, WETZEL COUNTY, WEST VIRGINIA.

RETTEW

RETTEW Associates, Inc.
27 Travato Street, Suite 101
Bridgeport, WV 26330
Phone (800) 738-8395
Email: rettew@rettew.com
Website: www.rettew.com

AS-DRILLED



NAME AND DISTANCE TO THE NEAREST STREAM: AN UNNAMED TRIBUTARY TO BUCK RUN IS LOCATED 853 FEET± SOUTHEAST OF THE CENTER OF THE DRILL PAD.		STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS.		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 RIDGETOP LAND VENTURES WTZ WELL #: 5H		LOCATION: PROCTOR DISTRICT, WETZEL COUNTY, WEST VIRGINIA <i>Received Office of...</i>	
FEMA FLOOD INFORMATION: PER FEMA TILE 54051C0250E, EFFECTIVE DATE SEPTEMBER 25, 2009, NO FLOOD ZONES		SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.665890° LONGITUDE: -80.673194° NOV 20 2015		BOTTOM HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.676754° LONGITUDE: -80.684459° 01/08/2016	
LEGEND: * PROPOSED SURFACE HOLE / BOTTOM HOLE * EXISTING / PRODUCING WELLHEAD * ABANDONED WELL * PLUGGED & ABANDONED WELL * CUT CONDUCTOR		- MAR 5 > - PROPOSED DHP - MAR 5 > - AS-DRILLED DHP - - - - - LEASE BOUNDARY - - - - - ACCESS ROAD - - - - - ACCESS ROAD TO PREV. SITE - - - - - HIGHWAY/INTERSTATE - - - - - COUNTY ROAD		REVISIONS: Δ ADDED PROPOSED LATERAL 11-05-2015	
		DATE: 10-26-2015 FILE NO: DRAWN BY: J. ROSS SCALE: 1" = 2000' DRAWING NO: 087569007 TOPOGRAPHIC MAP			

RETTEW

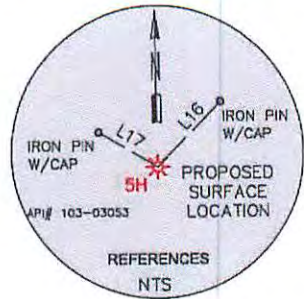
RETTEW Associates, Inc.
27 Travato Street, Suite 101
Bridgeport, WV 26330
Phone (800) 738-8395
Email: rette@rettew.com
Website: www.rettew.com

SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,390,726.385 EASTING: 528,031.574
"LANDING POINT" LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,390,910.850 EASTING: 528,168.354
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,391,928.658 EASTING: 527,061.062

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

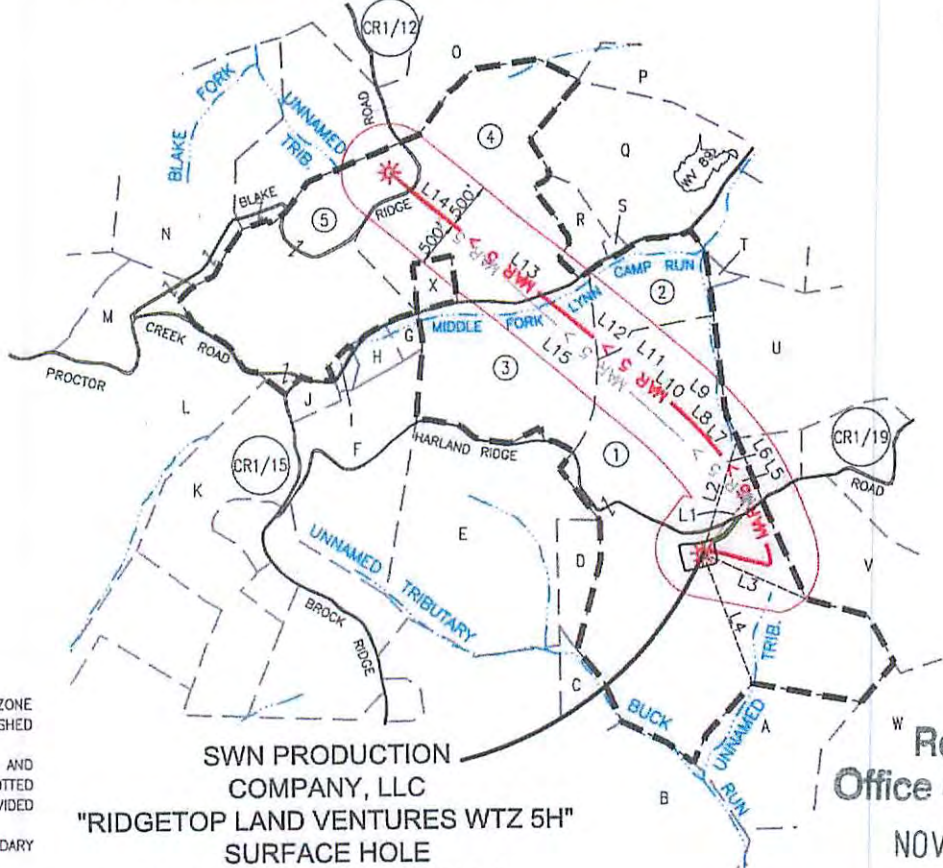
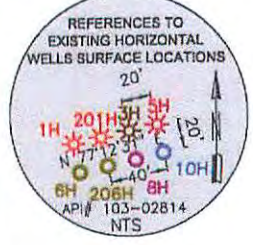
LINE	DESCRIPTION	DISTANCE	DESCRIPTION
L1	N 39°21'00" E	731'	SHL TO LP
L2	N 17°25'47" E	1,234'	SHL TO LANDMARK
L3	S 65°41'43" E	1,158'	SHL TO LANDMARK
L4	S 20°27'14" E	1,423'	SHL TO LANDMARK
L5	N 29°22'18" W	315'	ASDRILLED BORE
L6	N 36°14'24" W	190'	ASDRILLED BORE
L7	N 40°20'07" W	285'	ASDRILLED BORE
L8	N 43°35'12" W	189'	ASDRILLED BORE
L9	N 46°52'12" W	190'	ASDRILLED BORE
L10	N 49°17'04" W	284'	ASDRILLED BORE
L11	N 49°38'50" W	475'	ASDRILLED BORE
L12	N 49°56'35" W	758'	ASDRILLED BORE
L13	N 50°41'24" W	1,327'	ASDRILLED BORE
L14	N 50°13'14" W	949'	ASDRILLED BORE
L15	N 47°24'40" W	4,934'	LP TO BHL
L16	N 43°59'57" W	234'	SHL TO REF. PNT.
L17	N 59°00'15" W	175'	SHL TO REF. PNT.

Latitude: 39°40'00" SHL



Longitude: 80°40'00"

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	RIDGETOP CAPITAL LP. (S)	12-14-25	±173.00
2	MICHAEL E. & VELVA C. LASURE (S)	12-14-14	±25.00
3	JAMES & JORETTA RITCHEA (S)	12-14-4	±62.11
4	RONNIE E. & YVONNE M. WADE (S)	12-14-04.1	±94.37
5	CHESAPEAKE APPALACHIA, LLC (S)	12-14-13	±65.30

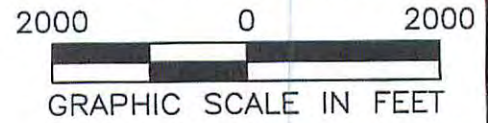


SWN PRODUCTION COMPANY, LLC
"RIDGETOP LAND VENTURES WTZ 5H"
SURFACE HOLE
ELEV: 1,436.00' (AS-DRILLED)

Received
Office of Oil & Gas
NOV 20 2015

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 OF 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

<p>(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS</p> <p>WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034</p>	<p>MINIMUM DEGREE OF ACCURACY: 1/200</p> <p>PROVEN SURVEY SOURCE OF ELEVATION: GRADE GPS (NAVD 88, US FT)</p>	<p>COMPANY: SWN Production Company, LLC</p> <p>SWN Production Company™</p>
	<p>RIDGETOP LAND VENTURES WTZ</p> <p>OPERATOR'S WELL #: 5H</p> <p>API WELL #: 47 103</p> <p>STATE COUNTY PERMIT</p>	<p>WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input type="checkbox"/> DEEP <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> STORAGE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/></p> <p>WATERSHED: LITTLE FISHING CREEK ELEVATION: 1,436.00' (AS-DRILLED)</p> <p>DISTRICT: PROCTOR COUNTY: WETZEL QUADRANGLE: WILEYVILLE, W.VA.</p> <p>SURFACE OWNER: RIDGETOP CAPITAL, LP ACREAGE: 173.00±</p> <p>OIL & GAS ROYALTY OWNER: RIDGETOP CAPITAL, LP ACREAGE: 173.00±</p> <p>DRILL <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/></p> <p>CONVERT <input type="checkbox"/> PLUG & ABANDON <input type="checkbox"/> CLEAN OUT & REPLUG <input type="checkbox"/> OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRILLED</p> <p>TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7,403' TVD 12,892' TMD</p>
<p>WELL OPERATOR: SWN PRODUCTION COMPANY, LLC</p> <p>ADDRESS: P.O. BOX 1300</p> <p>CITY: JANE LEW STATE: WV ZIP CODE: 26378</p>	<p>DESIGNATED AGENT: DEE SOUTHALL</p> <p>ADDRESS: P.O. BOX 1300</p> <p>CITY: JANE LEW STATE: WV ZIP CODE: 26378</p>	<p>REVISIONS:</p> <p>△ ADDED PROPOSED LATERAL 11-05-2015</p> <p>DATE: 10-26-2015</p> <p>FILE NO:</p> <p>DRAWN BY: J. ROSS</p> <p>SCALE: 1" = 2000'</p> <p>DRAWING NO: 087569007</p> <p>WELL LOCATION PLAT</p>



ADJOINING OWNERS

RETTEW Associates, Inc.
27 Travato Street, Suite 101
Bridgeport, WV 26330
Phone (800) 738-8395
Email: rettetw@rettetw.com
Website: www.rettetw.com

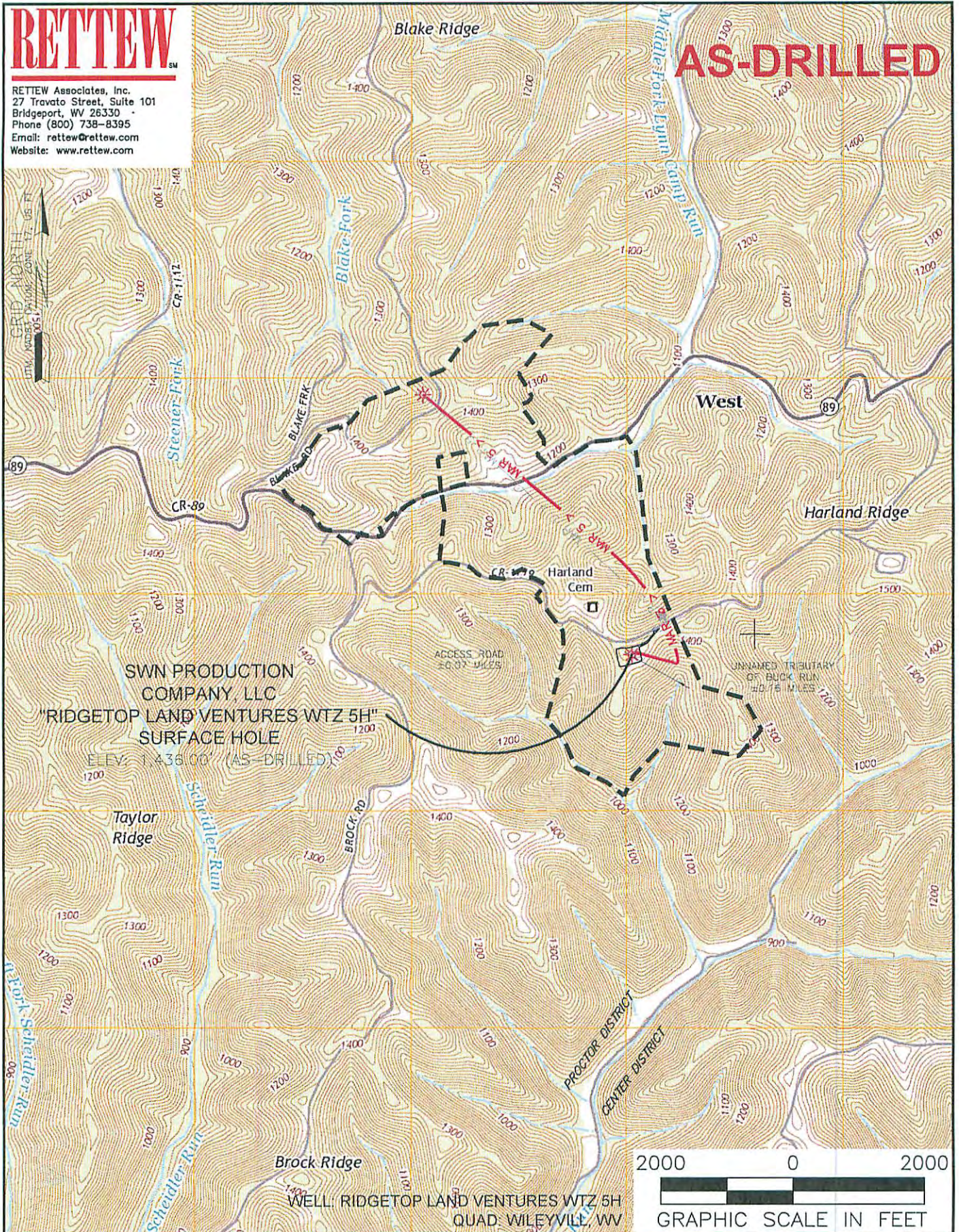
AS-DRILLED



Table with 4 columns: TRACT, ADJOINING PROPERTY OWNERS, TAX PARCEL, ACRES. Rows A through X listing various owners and their respective parcels and acreages.

Revised
Office of
NOV 20 2015

01/08/2016

Table with 2 main sections: REVISIONS and COMPANY/OPERATOR/LOCATION/DATE/FILE NO/DRAWN BY/SCALE/DRAWING NO/ADJOINING OWNERS.



NAME AND DISTANCE TO THE NEAREST STREAM: AN UNNAMED TRIBUTARY TO BUCK RUN IS LOCATED 853 FEET± SOUTHEAST OF THE CENTER OF THE DRILL PAD.		STREAM CROSSING COORDINATES (NAD 83): NO NEW CROSSINGS.		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 RIDGETOP LAND VENTURES WTZ WELL #: 5H LOCATION: PROCTOR DISTRICT, WETZEL COUNTY, WEST VIRGINIA		SURFACE HOLE LOCATION: GEOGRAPHIC (NAD83): LATITUDE: 39.665890° LONGITUDE: -80.673194° NOV 20 2015	
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