

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

API 47 - 103 - 03128 County WETZEL District PROCTOR
Quad WILEYVILLE, WV Pad Name WILLIAM RITCHEA WTZ PAD Field/Pool Name VICTORY FIELD
Farm name RITCHEA, WILLIAM D & SHIRLEY E Well Number WILLIAM RITCHEA WTZ 1H
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 4,391,142.769 Easting 529,214.238
Landing Point of Curve Northing 4,391,085.168 Easting 528,802.986
Bottom Hole Northing 4,392,535.626 Easting 527,337.794

Elevation (ft) 1563.3' 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 7/31/2015 Date drilling commenced 9/24/15 Date drilling ceased 11/15/15
Date completion activities began 10/01/16 Date completion activities ceased 11/19/16
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 522' MD Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 770' MD Void(s) encountered (Y/N) depths _____
Coal depth(s) ft 1479' MD Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

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APPROVED

NAME: [Signature]
DATE: 3-17-17

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05/26/2017

API 47- 103 - 03128 Farm name WILLIAM RITCHEA WTZ 1H Well number WILLIAM RITCHEA WTZ 1H

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	28	20	126	NEW	J-55/94#		Y	
Surface	17.5	13.375	670	NEW	J-55/54.5#		Y; BBLs RETURNED	
Coal	SEE INTERMEDIATE							
Intermediate 1	12.25	9.625	3012	NEW	J-55/40#		Y; BBLs RETURNED	
Intermediate 2								
Intermediate 3								
Production	8.75/8.50	5.5		NEW	HCP-110/20#		Y	
Tubing		2.375	8063	NEW	L-80/4.7#		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	455	17.20	1.29	586.95	SURFACE	24
Surface	CLASS A	1715	15.60	1.20	2058	SURFACE	8
Coal	SEE INTERMEDIATE						
Intermediate 1	CLASS A	2253/1080	481/275	1.20/1.19	2703.6/1285.2	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	2961/4420	648/936	1.23/1.19	3642.03/5259.8	SURFACE	24
Tubing							

Drillers TD (ft) 14933' Loggers TD (ft) 14933'
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6,826'

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: 7 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 INTERMEDIATE: 24 CENTRALIZERS - EVERY THIRD JOINT OF CASING
 PRODUCTION: 181 CENTRALIZERS - EVERY THIRD JOINT FROM SURFACE TO TOP OF CURVE, THEN EVERY JOINT UNTIL TD

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>MARCELLUS</u>	<u>7529.85</u>	<u>TVD</u>	<u>8004.98</u> <u>MD</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1575 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 2401 mcfpd Oil 57 bpd NGL _____ bpd Water 102 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	<u>0</u>		<u>0</u>		
	<u>SEE</u>	<u>ATTACHMENT</u>	<u>3</u>		

Please insert additional pages as applicable.

Drilling Contractor SWN DRILLING COMPANY
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Logging Company NINE ENERGY SERVICES
Address 16945 NORTHCASE DRIVE, STE 1600 City HOUSTON State TX Zip 77060

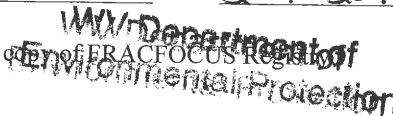
Cementing Company SCHLUMBERGER WELL SERVICES
Address 110 SCHLUMBERGER DRIVE City SUGAR LAND State TX Zip 77478

Stimulating Company BAKER HUGHES
Address 9110 GROGANS MILL RD City THE WOODLANDS State TX Zip 77380

Please insert additional pages as applicable.

Completed by DENISE GRANTHAM Telephone 832-749-1139
Signature Denise Grantham Title REGULATORY TECHNICIAN Date 2/24/2017

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of ERAC FOCUS Report

05/26/2017

WILLIAM RITCHEA WTZ 1H

Perf Stage Summary

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	10/1/2016	14,691	14,798	42
2	10/2/2016	14,551	14,658	42
3	10/2/2016	14,411	14,518	42
4	10/2/2016	14,271	14,378	42
5	10/2/2016	14,131	14,238	42
6	10/2/2016	13,991	14,098	42
7	10/3/2016	13,851	13,958	42
8	10/3/2016	13,711	13,818	42
9	10/3/2016	13,571	13,678	42
10	10/4/2016	13,431	13,538	42
11	10/4/2016	13,291	13,398	42
12	10/4/2016	13,151	13,258	42
13	10/8/2016	13,011	13,118	42
14	10/13/2016	12,871	12,978	42
15	10/13/2016	12,731	12,838	42
16	10/13/2016	12,591	12,698	42
17	10/13/2016	12,451	12,558	42
18	10/13/2016	12,311	12,418	42
19	10/14/2016	12,171	12,278	42
20	10/14/2016	12,031	12,138	42
21	10/14/2016	11,891	11,998	42
22	10/14/2016	11,751	11,858	42
23	10/15/2016	11,611	11,718	42
24	10/15/2016	11,471	11,578	42
25	10/15/2016	11,331	11,438	42
26	10/15/2016	11,191	11,298	42
27	10/16/2016	11,051	11,158	42
28	10/16/2016	10,911	11,018	42
29	10/16/2016	10,771	10,878	42
30	10/16/2016	10,631	10,738	42
31	10/17/2016	10,491	10,598	42
32	10/17/2016	10,351	10,458	42
33	10/17/2016	10,211	10,318	42
34	10/18/2016	10,071	10,178	42
35	10/18/2016	9,931	10,038	42
36	10/18/2016	9,791	9,898	42
37	10/18/2016	9,651	9,758	42
38	10/18/2016	9,511	9,618	42
39	10/18/2016	9,371	9,478	42
40	10/19/2016	9,231	9,338	42
41	10/19/2016	9,091	9,198	42
42	10/19/2016	8,951	9,058	42
43	10/20/2016	8,811	8,918	42
44	10/20/2016	8,671	8,778	42
45	10/20/2016	8,531	8,638	42
46	10/20/2016	8,391	8,498	42
47	10/20/2016	8,251	8,358	42
48	10/20/2016	8,111	8,218	42

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WILLIAM RITCHEA WTZ 1

Frac Stage Summary

STAGE NUM	Stim Date	Amount of Proppant (lbs)	Amount of water bbls	Max Breakdown Pressure (PSI)	Ave Treatment Pressure (PSI)	ISIP (PSI)	Ave Pump Rate (BPM)	Amount of nitrogen/other
1	10/1/2016	502,160	9,395	9,184	8,801	4,128	78	
2	10/2/2016	504,180	9,090	9,044	8,497	4,526	83	
3	10/2/2016	504,160	7,835	8,868	8,465	5,225	89	
4	10/2/2016	496,420	7,721	8,892	8,553	4,989	89	
5	10/2/2016	505,380	7,476	9,197	8,770	4,758	92	
6	10/2/2016	495,260	7,798	9,448	8,744	5,478	86	
7	10/3/2016	500,120	7,867	8,905	8,592	5,356	88	
8	10/3/2016	499,825	7,049	9,817	8,552	8,592	89	
9	10/3/2016	502,920	7,571	9,131	8,734	4,937	89	
10	10/4/2016	500,760	7,635	8,939	8,656	5,409	94	
11	10/4/2016	476,840	7,502	8,918	8,681	5,396	88	
12	10/4/2016	496,060	7,820	9,212	8,917	5,253	89	
13	10/8/2016	488,366	7,921	9,137	8,770	4,765	88	
14	10/13/2016	503,520	7,932	9,132	8,918	5,187	92	
15	10/13/2016	501,020	7,786	9,146	8,942	5,569	97	
16	10/13/2016	498,960	7,696	9,193	8,938	5,587	92	
17	10/13/2016	499,760	7,724	9,113	8,676	4,229	88	
18	10/13/2016	502,620	7,672	9,163	8,817	5,621	91	
19	10/14/2016	451,000	7,319	9,182	8,984	5,305	98	
20	10/14/2016	500,500	7,718	9,153	8,810	4,540	98	
21	10/14/2016	477,697	7,551	9,201	8,737	4,900	91	
22	10/14/2016	500,220	7,513	9,158	8,754	5,317	86	
23	10/15/2016	506,640	7,648	9,170	8,665	4,831	98	
24	10/15/2016	500,800	7,665	9,084	9,798	5,091	95	
25	10/15/2016	496,340	7,443	9,125	8,519	5,360	94	
26	10/15/2016	500,500	7,683	9,192	8,663	4,632	93	
27	10/16/2016	503,360	7,437	9,061	8,618	4,831	100	
28	10/16/2016	494,460	7,521	9,089	8,688	4,831	100	
29	10/16/2016	497,700	7,591	9,174	8,638	4,891	95	
30	10/16/2016	505,640	7,580	9,180	8,741	5,217	95	
31	10/17/2016	499,480	7,567	9,070	8,521	4,831	96	
32	10/17/2016	500,180	7,573	9,128	8,442	4,540	100	
33	10/17/2016	502,260	7,516	9,114	8,530	4,515	100	
34	10/18/2016	499,000	7,527	9,189	8,710	4,795	99	
35	10/18/2016	503,660	7,514	9,126	8,709	4,901	96	
36	10/18/2016	503,520	7,489	9,288	8,475	4,278	100	
37	10/18/2016	501,840	7,350	9,031	8,392	9,550	100	
38	10/18/2016	502,489	7,519	9,097	8,614	4,904	95	
39	10/18/2016	498,840	7,509	9,142	8,719	5,300	94	
40	10/19/2016	499,480	7,575	8,838	8,237	4,989	97	
41	10/19/2016	501,860	8,592	9,177	8,387	4,883	94	
42	10/19/2016	504,900	7,541	8,790	8,141	3,421	98	
43	10/20/2016	502,780	7,653	8,747	8,288	4,831	99	
44	10/20/2016	499,420	7,610	8,619	7,978	4,989	97	
45	10/20/2016	502,308	7,388	8,758	8,201	5,120	97	
46	10/20/2016	498,320	7,478	8,819	8,224	4,540	97	
47	10/20/2016	501,680	7,443	8,611	7,833	4,540	96	
48	10/20/2016	496,480	7,219	8,624	7,972	4,548	99	

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Well Name: WILLIAM RITCHEA WTZ 1H

LITHOLOGY/FORMATION	TOP DEPTH, MD (FT)	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, MD (FT)	BOTTOM DEPTH, TVD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	N.A.	N.A.	522.00	522.00	
Top of Salt Water	770.00	770.00	N.A.	N.A.	
Pittsburgh Coal	1479.00	1478.98	3108.35	2905.15	
Big Injun (ss)	3108.35	2905.15	3431.77	3258.43	
Berea (siltstone)	3431.77	3258.43	6999.65	6687.97	
Rhinstreet (shale)	6999.65	6687.97	7352.20	7196.95	
Cashaqua (shale)	7352.20	7196.95	7504.32	7309.10	
Middlesex (shale)	7504.32	7309.10	7651.37	7398.34	
Burket (shale)	7651.37	7398.34	7695.46	7420.72	
Tully (ls)	7695.46	7420.72	7747.09	7445.39	
Mahantango (shale)	7747.09	7445.39	8004.98	7529.85	
Marcellus (shale)	8004.98	7529.85	N.A.	N.A.	Gas

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	10/1/2016
Job End Date:	10/20/2016
State:	West Virginia
County:	Wetzel
API Number:	47-103-03128-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	William Ritchea WTZ 1H
Latitude:	39.67067000
Longitude:	-80.66358000
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,650
Total Base Water Volume (gal):	14,991,178
Total Base Non Water Volume:	0



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	Schlumberger	Acid Corrosion Inhibitor, AntiFoam Agent, Acid, Breaker, Gelling Agent, Friction Reducer, Buffer, Fluid Loss Additive, Propping Agent					

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Water (Including Mix Water Supplied by Client)*	7732-18-5	83.75134
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.		
Quartz, Crystalline silica	14808-60-7	16.02758
Hydrochloric acid	7647-01-0	0.17571
Ammonium sulfate	7783-20-2	0.02180
Acrylamide, 2-acrylamido-2-methylpropanesulfonic acid, sodium salt polymer	38193-60-1	0.01609
Guar gum	9000-30-0	0.00293
Polymer of 2-acrylamido-2-methylpropanesulfonic acid sodium salt and methyl acrylate	136793-29-8	0.00172
Urea	57-13-6	0.00651
Propan-2-ol	67-63-0	0.00236
Sodium sulfate	7757-82-6	0.00152
Non-crystalline silica (impurity)	7631-86-9	0.00140
Polypropylene glycol	25322-69-4	0.00117
Fatty acid, tall-oil reaction products with acetophenone	68188-40-9	0.00092
Alcohols, C12-C16, ethoxylated	68551-12-2	0.00077
Sodium carbonate	497-19-8	0.00062
Isodecanol w/6-7 Moles Ethylene Oxide	26183-52-8	0.00052
Cinnamaldehyde	104-55-2	0.00034
2-Propenamid (impurity)	79-06-1	0.00032
Diammonium peroxidisulphate	7727-54-0	0.00027
Tetrasodium ethylenediaminetetraacetate	64-02-8	0.00017

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				Amines, tallow alkyl, ethoxylated	61791-26-2	0.00010	0.00002	
				Dimethyl siloxanes and silicones	63148-62-9	0.00009	0.00002	
				Dodecyl poly (oxyethylene) ether	9002-92-0	0.00004	0.00001	
				Octamethylcyclotetrasiloxane	556-67-2	0.00001		
				Dodecamethylcyclohexasiloxane	540-97-6			
				Decamethyl cyclopentasiloxane	541-02-6	0.00001		
				Copper(II) sulfate	7758-98-7			
				Siloxanes and silicones, dimethyl, reaction products with silica	67762-90-7	0.00001		
				Glycols, polyethylene, monotetradecyl ether	27306-79-2	0.00003		

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

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

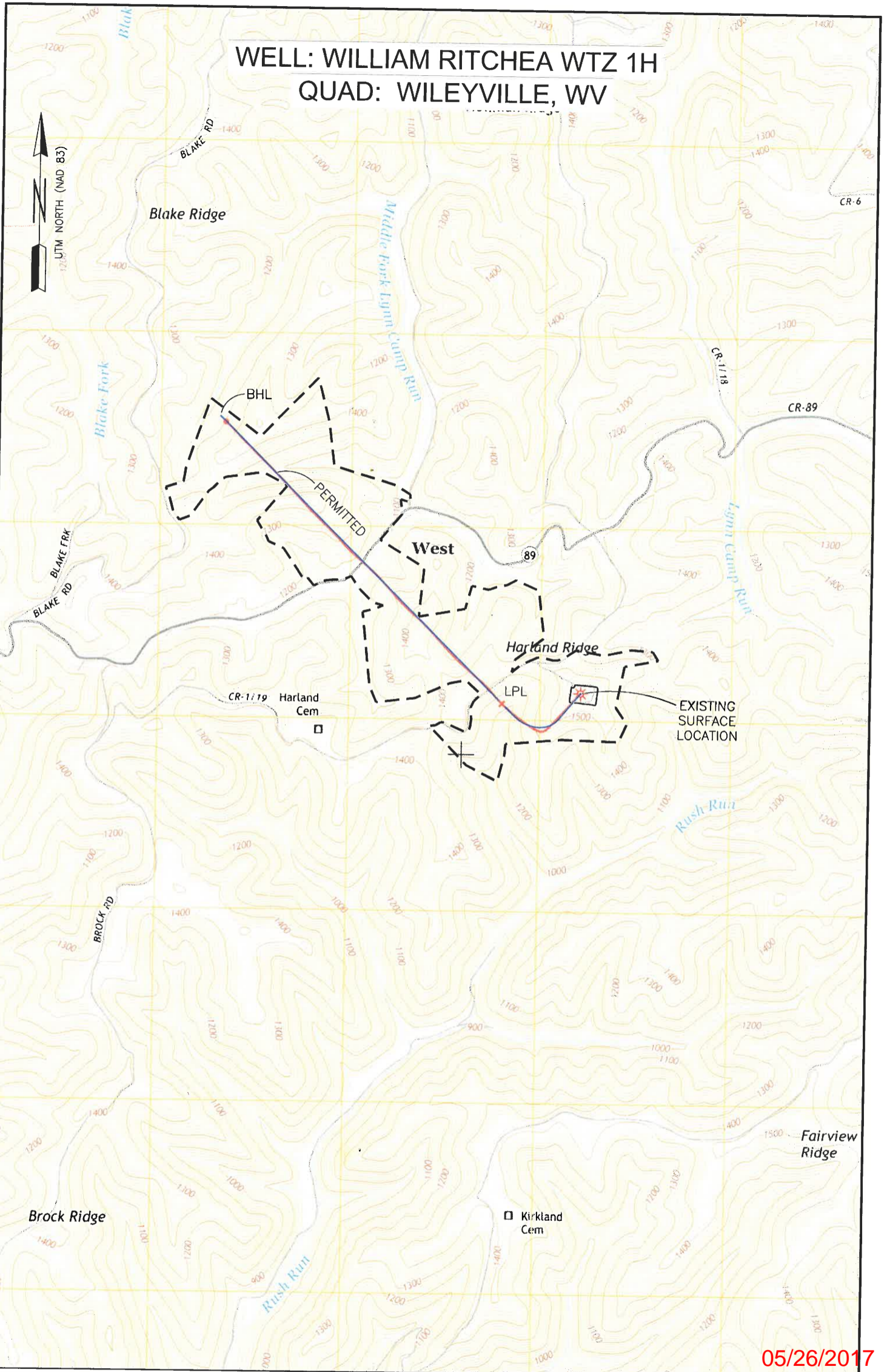
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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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WELL: WILLIAM RITCHEA WTZ 1H
QUAD: WILEYVILLE, WV



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NOTE:
 THE PURPOSE OF THIS PLAT IS FOR THE LOCATION OF PROPOSED GAS
 WELLS AND DOES NOT REPRESENT A CLOSED BOUNDARY SURVEY.
 PROPERTY LINE AND OWNERS WERE OBTAINED FROM VARIOUS FIELD
 EVIDENCE, TAX RECORDS AND AERIAL MAPPING.

LEGEND

----- EXTERNAL LEASE LINE

Applicant / Well Operator Name SWN PRODUCTION COMPANY, LLC	Well (Farm) Name WILLIAM RITCHEA WTZ	Well # 1H	Serial #
Address PO BOX 1300, JANE LEW, WV 26038	County - Code WETZEL - 103	District PROCTOR	
Surface Landowner / Lessor WILLIAM D. & SHIRLEY E. RITCHEA	USGS 7 1/2 Quadrangle Map Name WILEYVILLE, WV		



320 O'Bryan Lane • Van Buren, AR 72956
Office: 479.474.7916 • Fax: 479.474.2450
Surveying • handa-inc.com

LINE	DESCRIPTION	DISTANCE	DESCRIPTION	MONUMENT
L1	N 73°30'37" W	1306.84'	SHL TO LANDMARK	5/8" REBAR
L2	S 47°00'46" W	846.43'	SHL TO LANDMARK	5/8" REBAR
L3	S 82°10'37" W	1363.05'	SHL TO LPL	
L4	N 45°18'05" W	6707.28'	TPL TO BHL	
L5	N 67°46'20" E	311.10'	SHL TO REF. PNT.	5/8" REBAR
L6	S 64°33'26" W	227.10'	SHL TO REF. PNT.	5/8" REBAR

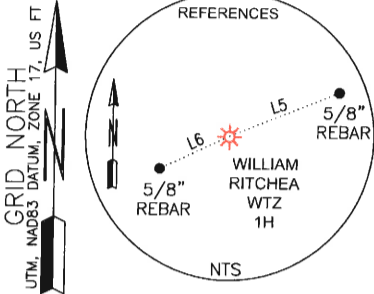
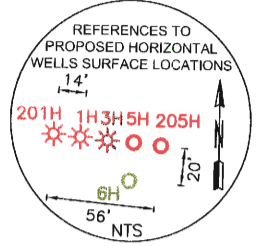
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Longitude: 80°37'30"

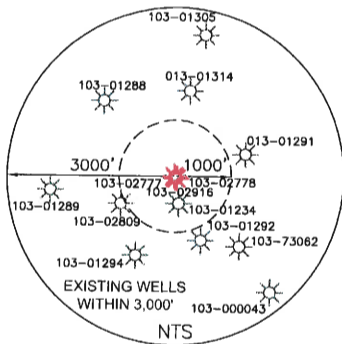
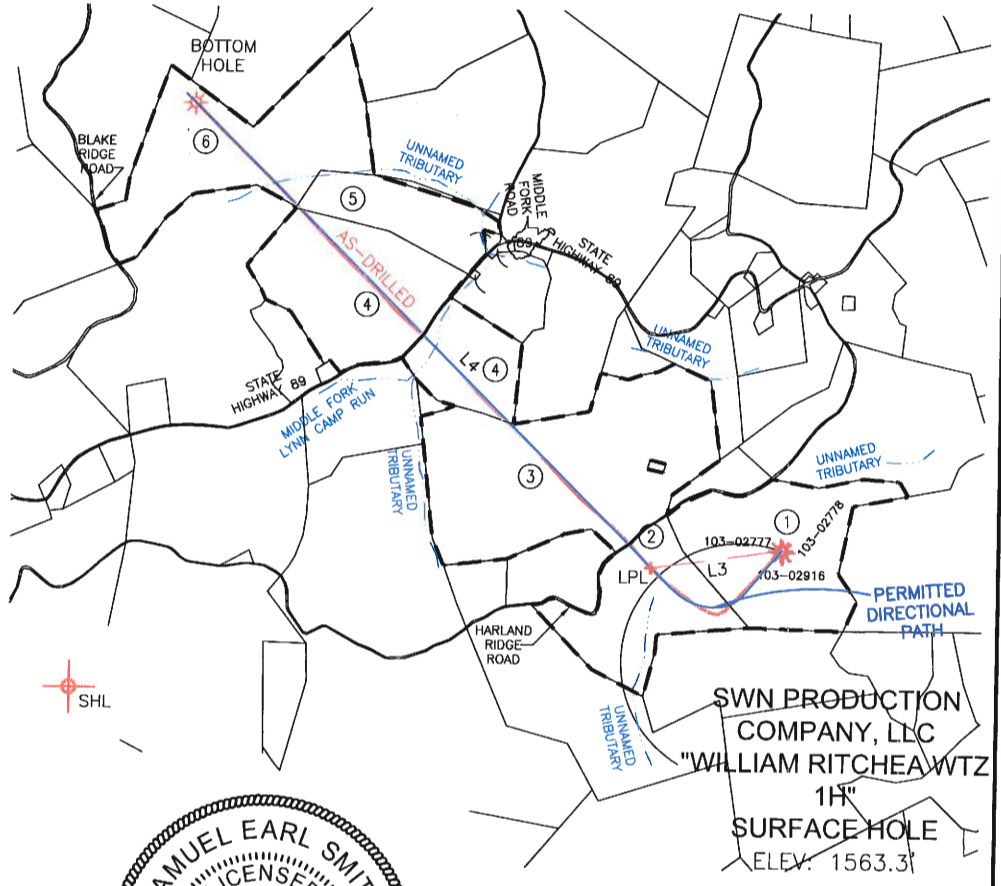
NOTES ON SURVEY

- 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 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 1000 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES	LEASE NUMBER
1	WILLIAM D RITCHEA & SHIRLEY E RITCHEA (S/R)	12-15-21	62.00	WV-0000113-000
2	WILLIAM R PITOSCIA (S) TASA CORPORATION (R) HERBERT W LINDSAY & MARIE LINDSAY (R) RUSSELL RAND & GWENDOLYN RAND (R)	12-14-27	57.00	WV-0000109-001 WV-0000109-002 WV-0000109-003
3	WILLIAM R PITOSCIA (S) TASA CORPORATION (R) HERBERT W LINDSAY & MARIE LINDSAY (R) RUSSELL RAND & GWENDOLYN RAND (R)	12-14-16	104.01	WV-0000109-001 WV-0000109-002 WV-0000109-003
4	MICHAEL E LASURE & VELVA C LASURE (S) RAY C HERMAN & DAIL A HERMAN (R)	12-14-6	22.84	1-254831-000
4	MICHAEL E LASURE & VELVA C LASURE (S) RAY C HERMAN & ROSE M HERMAN (R) DAIL A HERMAN (R)	12-14-6	52.89	WV-0000128-000
5	WAYNE HUGGINS & SANDRA M HUGGINS (S) F E BUCHNER (R), WILLARD HERMAN (R), DALE A HERMAN (R), RAY C HERMAN (R), DORA HALL PALMER (R), & FRANKIE E WOODSTUFF & ALBERT WOODSTUFF (R)	12-9-46.1	25.00	1-264519-000
6	NORMAN E KEENEY JR & NANCY M KEENEY (S) OTIS SIMMONS & MABEL SIMMONS (R), ETHEL RAMSEY & ELMER RAMSEY (R), & HAROLD SIMMONS & ROXIE SIMMONS (R)	12-9-45	100.00	1-254812-000



SURFACE HOLE LOCATION (SHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,391,142.769 EASTING: 529,214.238
LANDING POINT LOCATION (LPL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,391,085.168 EASTING: 528,802.986
BOTTOM HOLE LOCATION (BHL):
UTM (NAD83, ZONE 17, METERS): NORTHING: 4,392,535.626 EASTING: 527,337.794



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. 1333 *Samuel Earl Smith* 08-02-16

COMPANY: **SWN** Production Company, LLC

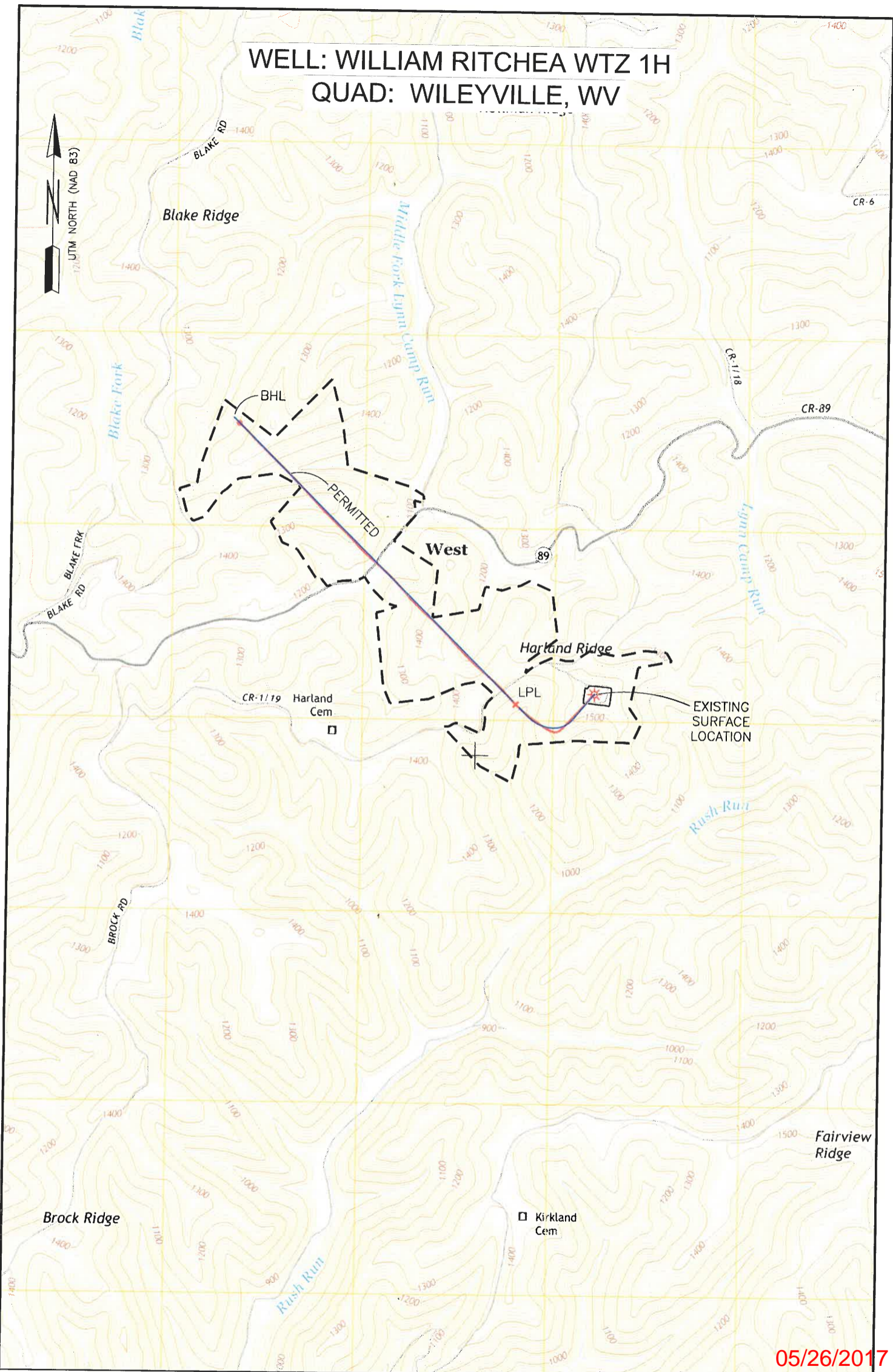
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)	COMPANY: SWN Production Company, LLC OPERATOR'S WELL #: WILLIAM RITCHEA WTZ 1H API WELL #: 47 103 03128 STATE COUNTY PERMIT
	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"/>	WATERSHED: LITTLE FISHING CREEK DISTRICT: PROCTOR COUNTY: WETZEL SURFACE OWNER: WILLIAM D & SHIRLEY E RITCHEA OIL & GAS ROYALTY OWNER: WILLIAM D & SHIRLEY E RITCHEA

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: 7,552' TVD 14933' 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:	REVISIONS:	DATE:
<ul style="list-style-type: none"> ○ PROPOSED SURFACE HOLE / BOTTOM HOLE ⊗ EXISTING / PRODUCING WELLHEAD ⊗ ABANDONED WELL ⊗ PLUGGED & ABANDONED WELL △ CUT CONDUCTOR --- LEASE BOUNDARY --- AS-DRILLED PATH --- PERMITTED --- DIRECTIONAL PATH 		07-20-2016
		DRAWN BY: S SMITH
		SCALE: 1" = 2000'
		DRAWING NO: 59480
		WELL LOCATION PLAT

**WELL: WILLIAM RITCHEA WTZ 1H
 QUAD: WILEYVILLE, WV**



05/26/2017

NOTE:
 THE PROPOSE OF THIS PLAT IS FOR THE LOCATION OF PROPOSED GAS
 WELLS AND DOES NOT REPRESENT A CLOSED BOUNDARY SURVEY.
 PROPERTY LINE AND OWNERS WERE OBTAINED FROM VARIOUS FIELD
 EVIDENCE, TAX RECORDS AND AERIAL MAPPING.

LEGEND

----- EXTERNAL LEASE LINE

Applicant / Well Operator Name SWN PRODUCTION COMPANY, LLC	Well (Farm) Name WILLIAM RITCHEA WTZ	Well # 1H	Serial #
Address PO BOX 1300, JANE LEW, WV 26038	County - Code WETZEL - 103	District PROCTOR	
Surface Landowner / Lessor WILLIAM D. & SHIRLEY E. RITCHEA	USGS 7 1/2 Quadrangle Map Name WILEYVILLE, WV		