

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

API 47-009-00239 County BROOKE District BUFFALO  
Quad TILTONSVILLE Pad Name BARRY GREATHOUSE A-BRK-PAD1 Field/Pool Name PANHANDLE FIELD WET  
Farm name BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE Well Number BARRY GREATHOUSE A BRK 205H  
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 4,449,073.74 Easting 531,019.69  
Landing Point of Curve Northing 4,449,153.03 Easting 531,368.85  
Bottom Hole Northing 4,453,346.16 Easting 529,291.76

Elevation (ft) 1136.8 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

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Date permit issued 02/26/2019 Date drilling commenced 04/17/2019 Date drilling ceased 04/30/2019  
Date completion activities began 07/04/2019 Date completion activities ceased 09/02/2019  
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 275' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 384' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 292' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:  
SP 12-17-19

Reviewed  
C. B. O. 12-17-19

API 47- 009 - 00239

Farm name BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE

Well number BARRY GREATHOUSE A BRK 205H

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	126'	NEW	J-55/94#		Y
Surface	17.5	13.375	400'	NEW	J-55/54.50#	188.5	Y
Coal	SEE SURFACE						
Intermediate 1	12.25	9.625	1,649'	NEW	J-55/36#		Y, 47 BBLS
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	21,584'	NEW	HCP-110/20#		Y
Tubing		2.875	6,261'	NEW	P-110/6.50#		N
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface	CLASS A	476	15.60	1.20	571.2	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	CLASS A	660	15.60	1.20	792	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4,110	15.60	1.19	4,890.9	SURFACE	24
Tubing							

Drillers TD (ft) 21,584'      Loggers TD (ft) 21,584'  
 Deepest formation penetrated Marcellus Shale      Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5,298'

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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WR-36  
Rev. 5/08

Date: 11/21/2019  
Operators Well Number: Barry Greathouse A BRK 205H  
API Well No: 47-009 - 00239

**State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas**

Well Operator's Report of  
Initial Gas-Oil Ratio

Well Operator SWN PRODUCTION COMPANY LLC Designated Agent \_\_\_\_\_  
Address PO BOX 12359 Address \_\_\_\_\_  
SPRING, TX 77391-2359 \_\_\_\_\_

Geological Target Formation: Marcellus Depth 5,794' TVD/6,090' MD feet  
Perforation Interval 6,203' - 21,498 feet

Guidelines for testing:

1. A minimum of gas vented or flared.
2. A 24 hour pre-flow into pipelines or tanks.
3. Uniform producing rate during the 24 hour test per test period.
4. Measurement standards as for Form WR-39, "Report of Annual Production" (see 35CSR4-15)
5. Separate Form WR-36 for each producing formation in a multiple completion.

**TEST DATA**

Start of Test Date	Time	End of Test Date	Time	Duration of Test
Tubing Pressure	Casing Pressure	Separator Pressure	Separator Temperature	
Oil Production During Test	Gas Production During Test	Water Production During Test		
BBLS	MCF	BBLS	-Salinity	
Oil Gravity	Producing Method (flowing, pumping, gas lift etc.)			
API				

**GAS PRODUCTION**

Measurement Method Flange Tap <input type="checkbox"/> Pipe Tap <input type="checkbox"/> L-10 <input type="checkbox"/>		Positive Choke <input type="checkbox"/>
		Positive flow prover <input type="checkbox"/>
Orifice diameter	Pipe Diameter (inside)	Nominal Choke Size inches 0
Differential Pressure range	Max. Static pressure range	Prover and Orifice diameter - inches
Differential		Static
Gas Gravity (Air = 1.0)	Flowing Temperature	Gas Temperature
Measured	Estimated	
24 Hour Coefficient	24 Hour coefficient pressure PSIA	

**TEST RESULTS**

Daily Oil <b>0 BBLS</b>	Daily Water <b>706 BBLS</b>	Daily Gas <b>0 MCFD</b>	Gas-Oil Ratio
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 Well Operator  
 BY BOBBY WILLIS  
 ITS: DESIGNATED REPRESENTATIVE



Location: Brooke County, WV  
 Field: Brooke  
 Facility: Barry Greathouse A BRK Pad  
 Slot: Slot #205H  
 Well: Barry Greathouse A BRK 205H  
 Wellbore: Barry Greathouse A BRK 205H PWB

Grid System: NAD83 UTM Zone 17 North, US Feet
True vertical depths are referenced to SDC 40 (R45)
North reference: Grid north
Scale: True distance
Measured depths are referenced to SDC 40 (R45)
SDC 40 (R45) to Mean Sea Level: 1183 feet
Mean Sea Level to Ground level (At Slot #205H): -1137 feet
Created by: hlight on 2019-05-09
Database: WVA_MWL_EXTERIORS_04n

Location Information			
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Longitude
Barry Greathouse A BRK Pad	1742183.979	4071129.187N	80738008.1337W
Slot #205H	13.59	3.21	4071129.3317N
SDC 40 (R45) to Ground level (At Slot #205H)	1742187.088	14599669.421	80738008.0917W
Mean Sea Level to Ground level (At Slot #205H)		2881	
SDC 40 (R45) to Mean Sea Level		-1137ft	
		1165ft	

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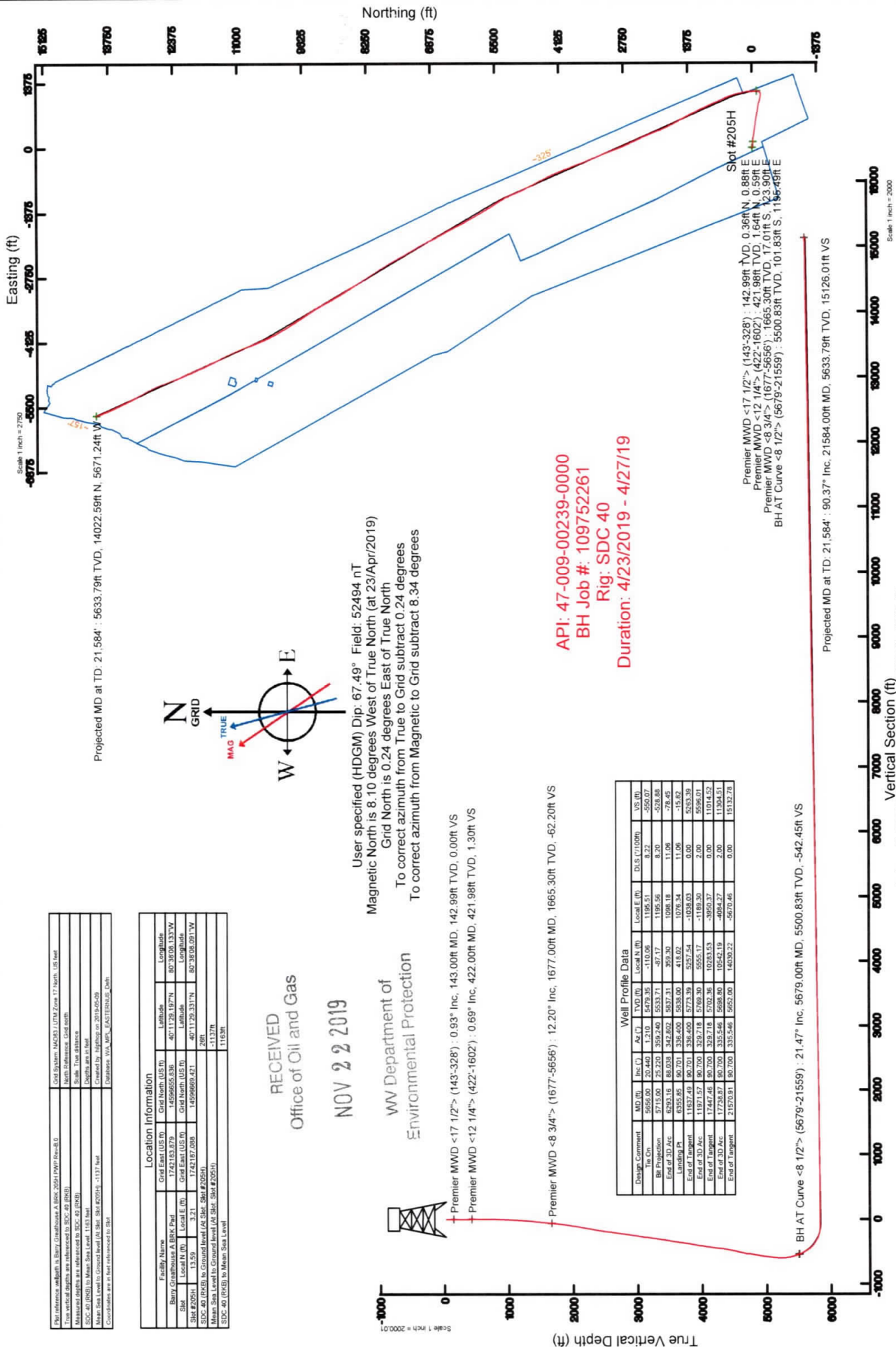
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User specified (HDGM) Dip: 67.49° Field: 52494 nT  
 Magnetic North is 8.10 degrees West of True North (at 23/Apr/2019)  
 Grid North is 0.24 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.24 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.34 degrees

- Premier MWD <17 1/2"> (143-328) : 0.93° Inc, 143.00ft MD, 142.99ft TVD, 0.00ft VS
- Premier MWD <12 1/4"> (422-1602) : 0.69° Inc, 422.00ft MD, 421.98ft TVD, 1.30ft VS
- Premier MWD <8 3/4"> (1677-5656) : 12.20° Inc, 1677.00ft MD, 1665.30ft TVD, -62.20ft VS

Design Comment	MD (ft)		AV (ft)		TVD (ft)		Local N (ft)		DLS (1/100ft)		VS (ft)	
	Inc	Dir	Inc	Dir	Inc	Dir	Inc	Dir	Inc	Dir	Inc	Dir
Top On	8556.00	20.440	1.210	5479.35	-110.06	8.22	-550.07					
BR Projection	5715.00	25.220	359.240	5533.71	-97.17	1195.51	8.20	-538.88				
End of 3D Arc	6355.85	88.038	342.802	5937.31	-99.30	1098.18	11.06	-78.45				
Landing Pt	6355.85	90.701	338.400	5938.00	-418.02	1079.34	11.06	-15.82				
End of Target	1187.49	90.701	338.400	5773.39	-527.54	-1038.03	0.00	5363.39				
End of 3D Arc	1747.46	90.700	329.718	5769.30	-5955.17	-1189.30	2.00	5986.01				
End of Target	1726.87	90.700	335.546	5769.30	-5955.17	-3959.37	0.00	1014.32				
End of 3D Arc	2150.91	80.700	335.546	5652.86	-1609.22	-5670.86	0.00	15132.76				



API: 47-009-00239-0000  
 BH Job #: 109752261  
 Rig: SDC 40  
 Duration: 4/23/2019 - 4/27/19

Slot #205H  
 Premier MWD <17 1/2"> (143-328) : 142.99ft TVD, 0.36ft N, 0.88ft E  
 Premier MWD <12 1/4"> (422-1602) : 421.98ft TVD, 1.64ft N, 0.59ft E  
 Premier MWD <8 3/4"> (1677-5656) : 1665.30ft TVD, 17.01ft S, 23.90ft E  
 BH AT Curve <8 1/2"> (5679-21559) : 5500.83ft TVD, 101.83ft S, 1198.49ft E

Projected MD at TD: 21.584° : 5633.79ft TVD, 14022.59ft N, 5671.24ft W  
 Projected MD at TD: 21.584° : 90.37° Inc, 21584.00ft MD, 5633.79ft TVD, 15126.01ft VS  
 Vertical Section (ft)  
 Azimuth 337.99° with reference 0.00 N, 0.00 E

Scale 1 inch = 2000

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/5/2019
Job End Date:	8/26/2019
State:	West Virginia
County:	Brooke
API Number:	47-009-00232-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Barry Greathouse A BRK 205H
Latitude:	40.19148100
Longitude:	-80.63558100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,737
Total Base Water Volume (gal):	24,272,577
Total Base Non Water Volume:	0

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## 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
Fresh Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	69.76277	Density = 8.34
Produced Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	17.90570	Density = 8.34

Ingredients	Listed Above	Listed Above							
			Water	7732-18-5	100.00000	0.03615			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant	RECEIVED Office of Oil and Gas NOV 22 2019	Listed Below					
OptiKleen-WF (TM)	Halliburton	Concentrate	WV Department of Environmental Protection	Listed Below					
FSTI-CI-01	FSTI	Acid Corrosion Inhibitor		Listed Below					
BE-9	Halliburton	Biocide		Listed Below					
Sand-Premium White-40/70	Halliburton	Proppant		Listed Below					
MC LD-2850	MultiChem	Friction Reducer		Listed Below					
FSTI HCl	FSTI	Acid		Listed Below					
LEGEND(TM) LD-7750W	MultiChem	Scale Control		Listed Below					



FSTI-IC-001	FSTI	Iron Control Agent	RECEIVED Office of Oil and Gas	Listed Below					
			NOV 22 2019	Listed Below					
LEGEND(TM) LD-7750	MultiChem	Scale Inhibitor	TW Department of Environmental Protection	Listed Below					
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.									
			Crystalline silica, quartz	14808-60-7	100.00000			11.44996	
			Hydrochloric acid	7647-01-0	15.00000			0.11678	
			Ethanaminium, N,N,N-trimethyl-2-[(1-oxo-2-propen-1-yl)oxy]chloride (1:1), polymer with 2-propenamide	69418-26-4	30.00000			0.02105	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000			0.02105	
			Sodium chloride	7647-14-5	10.00000			0.00746	
			Ammonium chloride	12125-02-9	10.00000			0.00702	
			Castor oil, ethoxylated	61791-12-6	10.00000			0.00702	
			9-Octadecenamide, n,n-bis-2(hydroxy-ethyl)-(Z)	93-83-4	5.00000			0.00351	
			Alcohols, C12-16, ethoxylated	68551-12-2	5.00000			0.00351	
			Sorbitan monooleate polyoxyethylene derivative	9005-65-6	5.00000			0.00351	
			Methanol	67-56-1	80.00000			0.00266	
			Acetic acid	64-19-7	60.00000			0.00234	
			Tributyl tetradecyl phosphonium chloride	81741-28-8	10.00000			0.00203	
			Citric acid	77-92-9	40.00000			0.00156	
			Phosphoric Acid Salt	Proprietary	5.00000			0.00044	
			Fatty acids	Trade Secret	10.00000			0.00011	

			Formaldehyde	50-00-0	0.10000	0.00008
			1,4-Dioxane	123-91-1	0.10000	0.00007
			Sodium glycolate	2836-32-0	0.10000	0.00007
			Ethylenediaminetetraacetic acid, tetrasodium salt	64-02-8	0.10000	0.00007
			Nitrotriacetic acid, trisodium salt monohydrate	5064-31-3	0.10000	0.00007
			Hydroquinone monomethyl ether	150-76-5	0.10000	0.00007
			Diethanolamine	111-42-2	0.10000	0.00007
			Sodium perborate tetrahydrate	10486-00-7	100.00000	0.00001

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\* 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)

**WELL NAME  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	6/26/2019	21,498	21,399	36
2	7/5/2019	21,365	21,258	42
3	7/6/2019	21,225	21,118	42
4	7/6/2019	21,085	20,978	42
5	7/7/2019	20,945	20,838	42
6	7/7/2019	20,805	20,698	42
7	7/8/2019	20,665	20,558	42
8	7/8/2019	20,525	20,418	42
9	7/8/2019	20,385	20,278	42
10	7/8/2019	20,245	20,138	42
11	7/9/2019	20,105	19,998	42
12	7/9/2019	19,965	19,858	42
13	7/10/2019	19,825	19,718	42
14	7/10/2019	19,685	19,578	42
15	7/10/2019	19,545	19,438	42
16	7/10/2019	19,405	19,298	42
17	7/11/2019	19,265	19,158	42
18	8/3/2019	19,125	19,018	42
19	8/3/2019	18,985	18,878	42
20	8/4/2019	18,845	18,738	42
21	8/4/2019	18,705	18,598	42
22	8/4/2019	18,565	18,458	42
23	8/4/2019	18,425	18,318	42
24	8/5/2019	18,285	18,178	42
25	8/5/2019	18,145	18,038	42
26	8/5/2019	18,005	17,898	42
27	8/5/2019	17,865	17,758	42
28	8/5/2019	17,725	17,618	42
29	8/6/2019	17,585	17,478	42
30	8/6/2019	17,445	17,340	84
31	8/8/2019	17,230	17,123	42
32	8/8/2019	17,090	16,983	42
33	8/10/2019	16,950	16,843	42
34	8/11/2019	16,810	16,703	42
35	8/11/2019	16,670	16,563	42
36	8/11/2019	16,530	16,423	42
37	8/11/2019	16,390	16,283	42
38	8/11/2019	16,250	16,143	42
39	8/12/2019	16,110	16,003	42
40	8/12/2019	15,970	15,863	42
41	8/12/2019	15,830	15,723	42
42	8/12/2019	15,690	15,583	42
43	8/13/2019	15,550	15,443	42
44	8/13/2019	15,410	15,303	42
45	8/13/2019	15,270	15,163	42
46	8/13/2019	15,130	15,023	42
47	8/13/2019	14,990	14,883	42
48	8/14/2019	14,850	14,743	42
49	8/14/2019	14,710	14,603	42
50	8/14/2019	14,570	14,463	42
51	8/14/2019	14,430	14,323	42
52	8/14/2019	14,290	14,183	42
53	8/15/2019	14,150	14,043	42
54	8/15/2019	14,010	13,903	42
55	8/16/2019	13,870	13,763	42
56	8/16/2019	13,730	13,623	42
57	8/16/2019	13,590	13,483	42
58	8/16/2019	13,450	13,343	42

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**WELL NAME  
ATTACHMENT 1  
PERF REPORT**

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
59	8/16/2019	13,310	13,203	42
60	8/17/2019	13,170	13,063	42
61	8/17/2019	13,030	12,923	42
62	8/17/2019	12,890	12,783	42
63	8/17/2019	12,750	12,643	42
64	8/17/2019	12,610	12,503	42
65	8/18/2019	12,470	12,363	42
66	8/18/2019	12,330	12,223	42
67	8/18/2019	12,190	12,083	42
68	8/18/2019	12,050	11,943	42
69	8/19/2019	11,910	11,803	42
70	8/19/2019	11,770	11,663	42
71	8/19/2019	11,630	11,523	42
72	8/19/2019	11,490	11,383	42
73	8/19/2019	11,350	11,243	42
74	8/20/2019	11,210	11,103	42
75	8/20/2019	11,070	10,963	42
76	8/20/2019	10,930	10,823	42
77	8/20/2019	10,790	10,683	42
78	8/20/2019	10,650	10,543	42
79	8/20/2019	10,510	10,403	42
80	8/21/2019	10,370	10,263	42
81	8/21/2019	10,228	10,123	42
82	8/21/2019	10,090	9,983	42
83	8/21/2019	9,950	9,843	42
84	8/21/2019	9,810	9,694	61
85	8/22/2019	9,668	9,563	42
86	8/22/2019	9,530	9,423	42
87	8/22/2019	9,390	9,283	42
88	8/22/2019	9,250	9,143	42
89	8/22/2019	9,110	9,006	42
90	8/23/2019	8,970	8,863	42
91	8/23/2019	8,830	8,723	42
92	8/23/2019	8,690	8,583	42
93	8/23/2019	8,547	8,443	42
94	8/24/2019	8,410	8,304	42
95	8/24/2019	8,270	8,163	42
96	8/24/2019	8,128	8,023	42
97	8/24/2019	7,990	7,883	42
98	8/24/2019	7,850	7,743	42
99	8/24/2019	7,708	7,603	42
100	8/24/2019	7,570	7,466	42
101	8/25/2019	7,430	7,323	42
102	8/25/2019	7,290	7,183	42
103	8/25/2019	7,150	7,043	42
104	8/25/2019	7,010	6,903	42
105	8/8/2019	6,868	6,763	42
106	8/25/2019	6,730	6,625	42
107	8/25/2019	6,590	6,483	42
108	8/25/2019	6,450	6,343	42
109	8/25/2019	6,310	6,203	42

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**WELL NAME  
ATTACHMENT 2  
STIM REPORT**

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
1	7/5/2019	92.5	8,264	7,364	3,458	245,600	6,224	0
2	7/5/2019	99	8,298	5,880	3,986	245,110	7,488	0
3	7/6/2019	99.7	8,027	5,430	3,932	246,150	7,265	0
4	7/7/2019	97	8,059	5,291	3,916	244,470	7,018	0
5	7/7/2019	100.1	7,940	5,392	3,769	244,240	7,159	0
6	7/7/2019	99.6	8,005	5,600	4,006	245,170	7,335	0
7	7/8/2019	99.9	7,715	5,668	4,025	245,010	6,730	0
8	7/8/2019	100.1	7,888	5,041	3,851	244,970	7,025	0
9	7/8/2019	100.4	7,905	4,746	4,044	245,030	6,601	0
10	7/9/2019	95.9	8,078	5,315	4,054	245,410	6,028	0
11	7/9/2019	99.1	8,168	5,270	3,987	245,680	5,787	0
12	7/9/2019	97.6	7,876	4,854	3,978	246,340	6,017	0
13	7/10/2019	96.2	7,942	5,148	4,010	245,340	5,925	0
14	7/10/2019	89.2	7,971	5,242	3,394	246,370	5,876	0
15	7/10/2019	97.7	8,039	5,661	3,990	245,010	6,048	0
16	7/11/2019	98.8	8,313	5,636	3,210	245,230	5,786	0
17	7/11/2019	95.3	8,029	5,196	4,866	246,085	6,893	0
18	8/3/2019	96.1	8,146	4,822	4,052	244,850	8,014	0
19	8/4/2019	93.1	8,032	5,472	4,074	245,090	5,823	0
20	8/4/2019	96.3	8,052	5,058	3,961	246,490	5,928	0
21	8/4/2019	86.7	7,949	5,587	3,916	245,588	5,932	0
22	8/4/2019	88.5	7,913	5,388	4,070	245,100	5,708	0
23	8/5/2019	94.6	8,074	5,781	4,037	245,330	5,699	0
24	8/5/2019	96.6	8,050	5,649	4,036	245,430	5,843	0
25	8/5/2019	99.1	8,039	5,775	3,976	246,270	5,632	0
26	8/5/2019	92.8	8,210	5,719	3,918	245,960	5,790	0
27	8/5/2019	95.7	8,041	5,578	3,841	245,080	5,574	0
28	8/5/2019	90.2	8,058	5,308	4,109	245,900	5,702	0
29	8/6/2019	93.1	7,972	5,387	4,123	245,020	5,695	0
30	8/6/2019	92.7	7,980	5,748	8,431	245,505	11,815	0
31	8/8/2019	4.7	7,526	0	4,132	0	492	0
32	8/10/2019	92.1	8,153	5,387	3,482	245,670	6,171	0
33	8/10/2019	94.7	8,084	5,576	3,704	244,730	5,686	0
34	8/11/2019	95.1	7,824	5,102	3,962	246,620	5,643	0
35	8/11/2019	97.6	7,730	4,807	4,064	246,150	5,664	0
36	8/11/2019	89.9	8,183	5,895	3,796	245,240	5,658	0
37	8/11/2019	96.2	7,996	5,254	3,939	245,150	5,566	0
38	8/11/2019	95.6	7,963	5,808	4,087	245,090	5,736	0
39	8/12/2019	97.3	7,726	5,824	4,125	245,580	5,915	0
40	8/12/2019	95.2	7,906	5,635	3,786	244,980	6,410	0
41	8/12/2019	100	7,130	4,629	3,971	245,940	6,795	0
42	8/12/2019	93.5	8,035	5,752	4,030	245,210	5,711	0
43	8/13/2019	95.8	7,941	5,839	4,265	244,550	5,441	0
44	8/13/2019	99.2	7,574	5,581	3,974	248,510	5,865	0
45	8/13/2019	98.2	7,711	5,663	3,866	244,590	5,955	0
46	8/13/2019	99	7,616	4,666	4,084	245,020	5,668	0
47	8/14/2019	97.9	7,853	5,597	4,033	245,240	5,613	0
48	8/14/2019	99	7,547	5,636	3,874	247,610	5,459	0
49	8/14/2019	99.3	7,733	5,594	4,094	245,060	5,222	0
50	8/14/2019	97.3	7,794	5,633	3,943	245,530	5,404	0
51	8/14/2019	96.1	7,793	5,900	4,209	245,280	4,638	0
52	8/14/2019	97.2	7,976	5,458	4,117	245,610	4,751	0
53	8/15/2019	99.8	7,524	5,526	4,331	245,370	4,641	0
54	8/16/2019	100.1	7,752	4,933	4,264	244,970	5,131	0
55	8/16/2019	73.3	8,141	5,109	4,069	143,310	5,382	0
56	8/16/2019	98.9	7,526	4,698	4,294	249,790	4,813	0
57	8/16/2019	98.5	7,605	4,949	4,135	245,878	4,809	0

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Environmental Protection



**WELL NAME  
ATTACHMENT 2  
STIM REPORT**

STAGE NUM	Stim Date	Ave Pump Rate (BPM)	Ave Treatment	Max Breakdown	ISIP (PSI)	Amount of Proppant (lbs)	Amount of water bbls	Amount of nitrogen/othe
58	8/16/2019	99.2	7,669	5,175	4,054	244,630	4,596	0
59	8/17/2019	94.9	7,736	6,116	4,217	244,700	4,767	0
60	8/17/2019	93.6	7,760	7,481	4,100	244,930	4,760	0
61	8/17/2019	99.1	7,504	5,433	4,147	245,150	4,525	0
62	8/17/2019	97.7	7,719	5,521	4,073	244,350	4,580	0
63	8/17/2019	99.7	7,456	4,758	4,240	244,820	4,607	0
64	8/18/2019	99.8	7,347	5,381	4,013	244,700	4,612	0
65	8/18/2019	98.5	7,505	5,190	3,996	244,860	4,628	0
66	8/18/2019	9.7	8,120	6,223	7,524	15,460	4,145	0
67	8/18/2019	100.5	6,797	5,270	4,026	489,550	9,802	0
68	8/19/2019	99.7	7,395	5,669	4,190	244,530	4,535	0
69	8/19/2019	99.5	7,185	5,392	3,965	246,000	4,713	0
70	8/19/2019	98.2	7,400	5,569	4,187	246,550	4,674	0
71	8/19/2019	99.6	7,502	5,413	4,215	244,530	4,497	0
72	8/19/2019	99.8	7,113	5,143	4,212	244,790	4,627	0
73	8/19/2019	98.4	7,736	5,597	4,246	244,590	4,522	0
74	8/20/2019	98.2	7,036	5,712	4,237	244,840	4,542	0
75	8/20/2019	100.3	7,044	5,442	4,162	244,710	4,472	0
76	8/20/2019	100.7	6,957	5,501	4,215	246,690	4,485	0
77	8/20/2019	100.3	7,151	5,233	4,074	245,410	4,297	0
78	8/20/2019	100	7,151	5,559	4,081	244,780	4,517	0
79	8/20/2019	98.9	7,297	5,769	4,289	244,570	4,573	0
80	8/21/2019	99	6,763	4,962	4,341	245,040	4,616	0
81	8/21/2019	98.8	6,835	5,274	4,165	245,170	4,482	0
82	8/21/2019	97.4	7,296	5,624	4,139	245,510	4,415	0
83	8/21/2019	100	7,113	5,468	4,026	245,210	4,629	0
84	8/21/2019	95	7,527	6,412	3,880	245,530	7,668	0
85	8/22/2019	99.6	7,154	5,609	4,251	244,880	4,602	0
86	8/22/2019	98.7	6,902	5,252	4,486	245,440	4,592	0
87	8/22/2019	98.9	7,035	5,841	4,393	245,220	4,648	0
88	8/22/2019	100.5	6,981	5,215	4,282	244,640	4,387	0
89	8/23/2019	99.4	6,615	5,207	4,201	248,580	4,394	0
90	8/23/2019	91.3	7,756	5,406	4,269	157,511	6,047	0
91	8/23/2019	99.6	6,769	5,266	4,190	245,000	4,672	0
92	8/23/2019	94.9	7,177	5,384	3,947	245,240	4,539	0
93	8/23/2019	97.4	6,964	5,417	4,124	245,530	4,433	0
94	8/24/2019	97.3	6,836	5,887	4,332	244,930	4,366	0
95	8/24/2019	98.3	6,712	5,552	4,266	245,140	5,100	0
96	8/24/2019	99.7	6,530	5,161	4,235	245,450	4,592	0
97	8/24/2019	99	6,864	5,181	4,364	245,230	4,580	0
98	8/24/2019	99	6,865	5,945	4,231	246,180	4,487	0
99	8/24/2019	97	6,609	6,043	4,413	244,720	4,183	0
100	8/24/2019	97.4	6,687	5,896	4,528	244,220	4,155	0
101	8/25/2019	99.5	6,491	4,811	4,235	244,520	4,168	0
102	8/25/2019	98.7	6,395	5,415	4,266	244,290	4,122	0
103	8/25/2019	99.5	6,309	5,476	4,169	245,410	4,366	0
104	8/25/2019	99.5	6,404	5,397	4,161	244,070	4,386	0
105	8/25/2019	99.5	6,220	5,305	4,120	248,980	4,306	0
106	8/25/2019	99.5	6,172	4,719	4,126	243,500	4,206	0
107	8/25/2019	98.7	6,430	5,276	4,352	276,870	4,412	0
108	8/25/2019	99.6	6,119	5,818	4,323	274,420	4,517	0
109	8/26/2019	99.2	6,196	5,987	4,122	298,780	4,744	0

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Environmental Protection



Well Name:

Barry Greathouse A BRK 205H

470090023900000

ATTACHMENT 3

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	0.00	0.00	275.00	275.00	
Top of Salt Water	384.00	384.00	NA	NA	
Pittsburgh Coal	292.00	292.00	NA	NA	
Pottsville (ss)	398.00	398.00	796.00	796.00	
Raven Cliff (ss)	796.00	796.00	1047.00	1047.00	
Maxton (ss)	1047.00	1047.00	1349.00	1349.00	
Big Injun (ss)	1349.00	1349.00	1872.00	1868.00	
Cashagua (shale)	5712.00	5531.00	5746.00	5561.00	
Middlesex (shale)	5746.00	5561.00	5840.00	5641.00	
Burket (shale)	5840.00	5641.00	5859.00	5657.00	
Tully (ls)	5859.00	5657.00	5934.00	5711.00	
Mahantango (shale)	5934.00	5711.00	6090.00	5794.00	
Marcellus (shale)	6090.00	5794.00	NA	NA	GAS

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Environmental Protection



(2,000' SCALE) LATITUDE: 40°15'00" BOTTOM HOLE

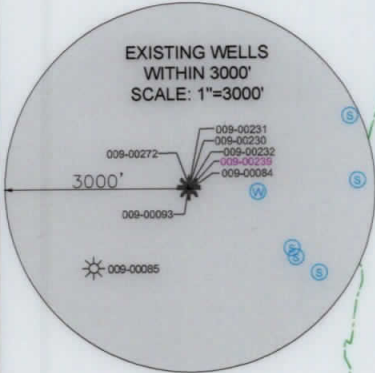
8568'

(2,000' SCALE) LATITUDE: 40°12'30" SURFACE HOLE

2956'

**JHA**  
SURVEYORS  
ENGINEERS  
ENVIRONMENTAL  
IGIS MAPPING

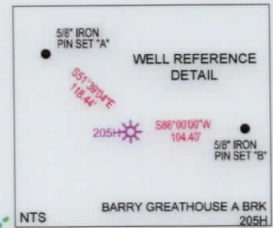
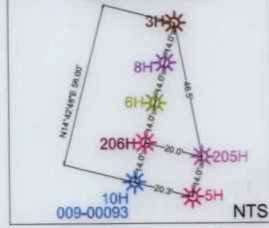
www.jhacompanies.com  
68011 Vineyard Road  
St. Clairsville, Ohio 43950  
740-695-6100



**NOTES ON SURVEY**

- COORDINATE 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/OR FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS OR BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD
- 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 THE LIMITS OF DISTURBANCE.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.

**WELL LAYOUT**



<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449073.74 EASTING: 531019.69
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449153.03 EASTING: 531368.85
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4453346.16 EASTING: 529291.76
<b>SURFACE HOLE LOCATION (SHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449073.74 EASTING: 531019.69
<b>LANDING POINT LOCATION (LPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4449201.10 EASTING: 531347.63
<b>TURNING POINT LOCATION (TPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4450766.30 EASTING: 530657.33
<b>TURNING POINT LOCATION (TPL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4452285.75 EASTING: 529775.28
<b>BOTTOM HOLE LOCATION (BHL):</b>
UTM (NAD83, ZONE 17, METERS): NORTHING: 4453348.49 EASTING: 529292.00

LINE	BEARING	DISTANCE
L1	S13°48'13"W	1125.88'
L2	N34°34'12"W	1101.37'



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)

BARRY GREATHOUSE A BRK

OPERATOR'S WELL #: 205H

API WELL #: 47 009 00239  
STATE COUNTY PERMIT

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

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1136.8'

DISTRICT: BUFFALO COUNTY: BROOKE QUADRANGLE: TILTONVILLE, OH-WV

SURFACE OWNER: BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE ACREAGE: ±229.00

OIL & GAS ROYALTY OWNER: RAYLE COAL COMPANY ACREAGE: ±229.00

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,829' TVD 21,584' TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: BRITTANY WOODY

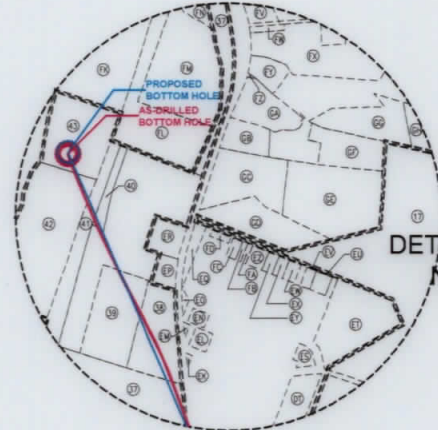
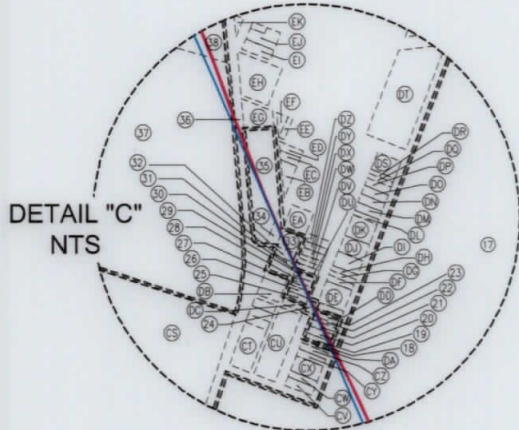
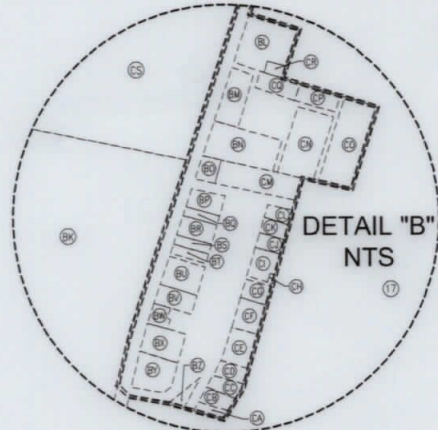
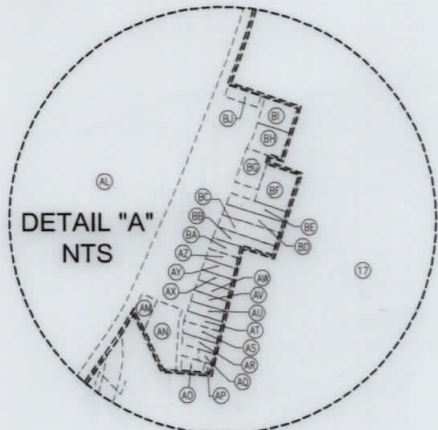
ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201

CITY: MORGANTOWN STATE: WV ZIP CODE: 26508 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508

<b>LEGEND:</b>	<b>REVISIONS:</b>	<b>DATE:</b> 11-18-2019
● EXISTING BOTTOM HOLE		
⊙ EXISTING / PRODUCING WELLHEAD		
LPL ● EXISTING LANDING POINT LOCATION		
○ PROPOSED SURFACE HOLE / BOTTOM HOLE		
LPL ● PROPOSED LANDING POINT LOCATION		
— ACCESS ROAD		
- - - PUBLIC ROAD		
— FLOOD PLAIN		
— LEASE BOUNDARY		
— AS-DRILLED PATH		
— PROPOSED PATH		

(2,000' SCALE) LONGITUDE: -80°37'30" SURFACE HOLE  
 (2,000' SCALE) LONGITUDE: -80°37'30" BOTTOM HOLE





WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE (S) RAYLE COAL COMPANY (R)	03-B41-0082.0000
TRACT	SURFACE OWNER	TAX PARCEL
2	MARK & TRINA PROVENZANO	03-B41-0080.0001
3	JAY GLEN COLLINS	03-B41-0080.0000
4	WILLIAM & DAWNA MILLER	03-B41-0061.0000
5	ERNEST & JOANN P. CAPP	03-B41-0063.0000
6	ERNEST & JOANN P. CAPP	03-B41-0064.0000
7	ERNEST & JOANN P. CAPP	03-B41-0052.0000
8	WINDSOR POWER HOUSE COAL CO.	03-B41-0049.0000
9	WINDSOR POWER HOUSE COAL CO.	03-B36-0104.0000
10	WINDSOR POWER HOUSE COAL CO.	03-B36-0103.0000
11	BROOKE COUNTY COMMISSION	03-B36-0103.0001
12	WINDSOR POWER HOUSE COAL CO.	03-B36-0101.0000
13	BRIAN D. & CASEY K. RICHARDSON	03-B36L-0021.0001
14	CONNIE WAGNER	03-B36L-0015.0000
15	AMANDA HUFF	03-B36L-0017.0000
16	JEFFERY M. & KRISTINA L. BARR	03-B36L-0011.0001
17	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-BB36-0023.0001
18	RIGHT OF WAY	ROAD UNKNOWN
19	CAROLYN K. MOORE	01-B36F-0070.0000
20	VALERIE GAIL & ROBERT LEE GRAY	01-B36F-0069.0000
21	JEFFREY L. STOLLAR	01-B36F-0068.0000
22	RIGHT OF WAY	ALLEY "T"
23	JUNE E. MORRELL	01-B36F-0067.0000
24	RIGHT OF WAY	HILL STREET
25	JON SCOTT & LORETTA MULHOLLEN	01-B36F-0028.0000
26	FRANK & TERISSA J. KYCOCKA	01-B36F-0029.0000
27	JUNE MORRELL	01-B36F-0030.0000
28	CHERYL E. SMITH	01-B36F-0031.0000
29	ROBERT HARRY & CONNIE FAY SADLER	01-B36F-0032.0000
30	RIGHT OF WAY	ALLEY "X"
31	ARCH J. & VERA E. BARTZ (TRANSFER UPON DEATH)	01-B36F-0020.0000
32	JUNE E. MORRELL	01-B36F-0019.0000
33	JUNE E. MORRELL	01-B36F-0018.0000
34	RIGHT OF WAY	HIGH STREET
35	JUNE E. MORRELL	01-B36F-0001.0000
36	RIGHT OF WAY (W.V. STATE ROUTE #2)	RIVER ROAD
37	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-B36B-0119.0000
38	BROWNLEE LAND VENTURES	01-B36B-0115.0000
39	BROWNLEE LAND VENTURES	01-B36B-0115.0003
40	VILLAGE OF BEECH BOTTOM	01-B36B-0115.0004
41	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-BB36-0024.0000
42	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-B36B-0116.0000
43	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-B36B-0126.0000

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	DALE T. & MARY R. WOOD (SURV.)	03-B41-0084.0000
B	DANNY GENE BRITT AND VIRGINIA MARGARET BRITT, JTWROS	03-B46-0027.0000
C	BOARD OF COMMISSION OHIO COUNTY, WHEELING OHIO COUNTY AIRPORT AUTHORITY	04-R5-0001.0000
D	STACY ANN GREATHOUSE & PATRICIA ANN GREATHOUSE, JTWROS	03-B46-0041.0000
E	BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE	03-B41-0083.0000
F	BARRY L. GREATHOUSE & PATRICIA A. GREATHOUSE	03-B41-0032.0000
G	ROBERT J. JR AND LINDA MILLER	03-B41-0047.0000
H	KARL DOUGLAS STEPHENS	03-B41-0054.0002
I	KEVIN S. WEEKLEY	03-B41-0056.0000
J	MICHAEL PAUL ALLEN	03-B41-0061.0003
K	ERNEST F. & JOANN P. CAPP	03-B41-0061.0001
L	ERNEST F. & JOANN P. CAPP	03-B41-0062.0000
M	WILLIAM & DAWNA MILLER	03-B41-0061.0002
N	ERNEST & JOANN PAULINE CAPP	03-B41-0053.0000
O	DUSTIN DAVID & MARY ELIZABETH WHITE	03-B41-0051.0000
P	SCOTT A. & SANDRA J. SANDRETH (SURV.)	03-B41-0050.0000
Q	WINDSOR POWER HOUSE COAL CO.	03-B41-0048.0000
R	WINDSOR POWER HOUSE COAL CO.	03-B36-0102.0000
S	WINDSOR POWER HOUSE COAL CO.	03-B36-0100.0000
T	WINDSOR POWER HOUSE COAL CO.	03-B36-0091.0000
U	WINDSOR POWER HOUSE COAL CO.	01-BB36-0022.0000
V	WINDSOR POWER HOUSE COAL CO.	01-BB36-0025.0000
W	MARY LOUISE MCALLISTER	01-BB36-0020.0000
X	LEITHA ADAMSON	01-BB36-0019.0000
Y	RALPH & MARY ANN PLANTS	01-BB36-0004.0000
Z	PAUL & GENEVEVE CUNNINGHAM	01-BB36-0017.0000
AA	PAUL & GENEVEVE CUNNINGHAM	01-BB36-0016.0000
AB	FRANKLIN MILLER	01-BB36-0015.0000
AC	FRANKLIN MILLER	01-BB36-0014.0000
AD	FRANKLIN MILLER	01-BB36-0013.0000
AE	FRANKLIN MILLER	01-BB36-0012.0000
AF	FRANKLIN & CONNIE J. MILLER	01-BB36-0011.0000
AG	FRANKLIN & CONNIE J. MILLER	01-BB36-0010.0000
AH	CHERYL E. SMITH	01-BB36-0009.0000
AI	STEVEN ANDREW & DEBBIE MURDOCK	01-BB36-0008.0000
AJ	DANIEL L. & CATHY J. JOHNSTON	01-BB36-0007.0000
AK	LELAND J. & TRACY A. DICKINSON	01-BB36-0006.0000
AL	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-BB36-0001.0000
AM	CHRISTOPHER DEAN	01-B36K-0030.0000
AN	CHARLES G. & CHRISTINE L. HOOD	01-B36K-0031.0000
AO	CHARLES G. & CHRISTINE L. HOOD	01-B36K-0050.0003
AP	JAMES D. MEADOWS	01-B36K-0050.0001
AQ	JAMES D. MEADOWS	01-B36K-0050.0002

REVISIONS:

COMPANY:

**SWN**  
Production Company, LLC

**SWN** *R-V+*  
Production Company™

OPERATOR'S

BARRY GREATHOUSE A BRK

DATE: 11-18-2019

WELL #:

205H

DRAWN BY: R.GRIMES

DISTRICT:  
BUFFALO

COUNTY:  
BROOKE

STATE:  
WV

SCALE: N/A

DRAWING NO: 2017-422

WELL LOCATION PLAT

PROPERTY NUMBER 2501166081

PAD ID 3001156331



ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
AR	MARK L. & SHARON KAY JORDAN	01-836K-0050.0000
AS	MARK L. & SHARON KAY JORDAN	01-836K-0049.0000
AT	JOHN E. & VIOLET E. CORSO	01-836K-0048.0000
AU	JOHN E. & VIOLET E. CORSO	01-836K-0047.0000
AV	JOHN E. & VIOLET E. CORSO	01-836K-0046.0000
AW	AYLSSA R. NEGRI	01-836K-0045.0000
AX	AYLSSA R. NEGRI	01-836K-0044.0000
AY	JOHN MILLER	01-836K-0043.0000
AZ	DONALD & ROSEMARIE MEADOWS	01-836K-0042.0000
BA	PAUL A. & MARY R. NEGRI	01-836K-0041.0000
BB	MORRIS W. BLEAU	01-836K-0040.0000
BC	ALICE M. TAYLOR	01-836K-0039.0000
BD	JESSE MCKEE	01-836K-0038.0000
BE	LINDA DARLIN SPENDER	01-836K-0037.0000
BF	MARISSA J. & ROBERT B. FORSHEY	01-836K-0036.0000
BG	DONALD E. & PATRICIA A. GILBERT	01-836K-0034.0000
BH	MARISSA J. FORSHEY	01-836K-0033.0000
BI	MARISSA J. FORSHEY	01-836K-0032.0000
BJ	WANDA S. JONES	01-836K-0014.0000
BK	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-836K-0013.0000
BL	C & P TELEPHONE COMPANY OF WEST VIRGINIA	01-836F-0078.0000
BM	JAMES B. LANDWEHR SR.	01-836F-0080.0000
BN	LINDA M. LEMASTERS	01-836F-0087.0000
BO	AMY N. FREY	01-836F-0088.0000
BP	GILBERT FEZER	01-836F-0103.0000
BQ	WANDA MARLENE SAYRE	01-836F-0104.0000
BR	WANDA MARLENE SAYRE	01-836F-0105.0000
BS	WANDA MARLENE SAYRE	01-836F-0106.0000
BT	WANDA MARLENE SAYRE	01-836F-0107.0000
BU	WANDA MARLENE SAYRE	01-836F-0108.0000
BV	RENEE M. ALLMAN	01-836F-0109.0000
BW	MILDRED M. HUNT, ESTATE	01-836F-0110.0000
BX	DENNIS RUSCHEL	01-836K-0001.0000
BY	DENNIS RUSCHEL	01-836K-0002.0000
BZ	VILLAGE OF BEECH BOTTOM	01-836K-0003.0000
CA	DOLORES VIRGINIA COEN	01-836K-0012.0000
CB	VILLAGE OF BEECH BOTTOM	01-836K-0011.0000
CC	CURTIS D. & TINA L. OSSMAN	01-836K-0010.0000
CD	LINDA COX	01-836K-0009.0000
CE	WILLIAM JONES	01-836K-0008.0000
CF	NICHOLAS RYNAWEC	01-836F-0086.0000
CG	GARY EDWARD & CONSTANCE L. LEONARD	01-836F-0095.0000
CH	ESTATE OF CHRIS KERCHER	01-836F-0094.0000
CJ	WILLIAM E. & DEBRA L. LEONARD	01-836F-0093.0000
CJ	TARA D. SUTER	01-836F-0092.0000
CK	TARA D. SUTER	01-836F-0091.0000
CL	JOHN ESKEY	01-836F-0090.0000
CM	AMY N. FREY	01-836F-0089.0000
CN	BRUCE & DEBBI SELMON	01-836F-0088.0000
CO	BRUCE & DEBBI SELMON	01-836F-0085.0000
CP	TERRY LYNN LILLY	01-836F-0084.0000
CQ	GEORGE W. & CHARLOTTE BARNHART	01-836F-0081.0000
CR	GEORGE W. & CHARLOTTE BARNHART	01-836F-0079.0000
CS	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-836F-0077.0000
CT	MARK T. SVETIC	01-836F-0025.0000
CU	JAC FRED W.V. LLC, A NORTH CAROLINA LLC	01-836F-0026.0000
CV	MICHAEL EDWARD & EMMA FEDCZAK	01-836F-0076.0000
CW	MICHAEL EDWARD & EMMA FEDCZAK	01-836F-0075.0000
CX	SHELBY L. CASTO	01-836F-0074.0000
CY	SHELBY L. CASTO	01-836F-0073.0000
CZ	PHYLLIS MARKER	01-836F-0072.0000
DA	GLENN T. & CAROLYN MOORE	01-836F-0071.0000
DB	ARCH J. & VERA E. BARTZ (TRANSFER UPON DEATH)	01-836F-0021.0000
DC	JOHN F. KRIEGER	01-836F-0027.0000
DD	JUNE E. MORRELL	01-836F-0066.0000
DE	SHIRLEY M. RYNAWEC	01-836F-0065.0000
DF	ALLEN KEITH & CAROLE YAHRLING	01-836F-0064.0000
DG	JUNE E. MORRELL	01-836F-0063.0000
DH	EDWARD A. POLAND	01-836F-0062.0000
DI	LELAND J. & TRACEY A. DICKINSON	01-836F-0061.0000
DJ	THE VILLAGE OF BEECH BOTTOM	01-836F-0060.0000
DK	JOYCE L. PAINTER	01-836F-0059.0000
DL	JANET L. RICHARDSON	01-836F-0058.0000
DM	JANET L. RICHARDSON	01-836F-0057.0000
DN	JANET L. RICHARDSON	01-836F-0056.0000
DO	JANET L. RICHARDSON	01-836F-0055.0000
DP	JANET L. RICHARDSON	01-836F-0054.0000
DQ	MONONGAHELA POWER COMPANY	01-836F-0053.0000
DR	LARRY W. GRIMES	01-836F-0052.0000
DS	LARRY W. GRIMES	01-836F-0051.0000
DT	BOARD OF EDUCATION	01-836B-0106.0000
DU	ROBERT SADLER	01-836F-0033.0000
DV	JAMIE ISINGHOOD	01-836F-0034.0000
DW	JUNE E. MORRELL	01-836F-0035.0000
DX	MELISSA G. KEMP	01-836F-0036.0000
DY	JUNE E. MORRELL	01-836F-0037.0000
DZ	JUNE E. MORRELL	01-836F-0038.0000
EA	JUNE E. MORRELL	01-836F-0017.0000
EB	BARBARA JO MCCUTCHAN	01-836F-0004.0000
EC	BARBARA JO MCCUTCHAN	01-836F-0003.0000
ED	BARBARA JO MCCUTCHAN	01-836F-0002.0000
EE	LORETTA A. PALMER	01-836B-0112.0000
EF	RACHEL J. MCCLUNE	01-836B-0113.0000
EG	GREGORY GEORGE & TARA SHEPHERD	01-836B-0114.0000
EH	GREGORY GEORGE & TARA LEE SHEPHERD	01-836B-0097.0000
EI	VILLAGE OF BEECH BOTTOM	01-836B-0095.0000
EJ	BEECH BOTTOM FIRE DEPARTMENT	01-836B-0094.0000
EK	VILLAGE OF BEECH BOTTOM	01-836B-0096.0000
EL	VILLAGE OF BEECH BOTTOM	01-836B-0080.0000
EM	VILLAGE OF BEECH BOTTOM	01-836B-0079.0000
EN	SHARON CALENDINE	01-836B-0078.0000
EO	VILLAGE OF BEECH BOTTOM	01-836B-0001.0000
EP	WHEELING OHIO COUNTY BOARD OF HEALTH	01-836B-0115.0002
EQ	VILLAGE OF BEECH BOTTOM	01-836B-0001.0000
ER	VARIETY DESIGNS, INC.	01-836B-0115.0001
ES	CLINTON W. & LORRAINE DEWITT	01-836B-0061.0000
ET	VILLAGE OF BEECH BOTTOM	01-836B-0017.0000
EU	JUSTIN & AMANDA SMART	01-836B-0013.0000
EV	GEORGE M. & JUDY LEWIS	01-836B-0012.0000
EW	BELINDA DAUGHERTY & ET AL. (L/E: JUNE ANN DAUGHERTY)	01-836B-0011.0000
EX	BARBARA JO MCCUTCHAN	01-836B-0010.0000
EY	WILLIAM B. JR. & ELIZABETH N. CAIN	01-836B-0009.0000
EZ	SHEILA ANN LAZEAR	01-836B-0008.0000

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
FA	SHEILA LAZEAR	01-836B-0007.0000
FB	JOHN C. & KELLY A. RICHIE	01-836B-0006.0000
FC	JOHN C. & KELLY A. RICHIE	01-836B-0005.0000
FD	PATRICK J. DALBO	01-836B-0002.0000
FE	ALLEGHENY ENERGY SUPPLY COMPANY, LLC	01-8B36-0030.0000
FF	THE BROOKE COUNTY COMMISSION	01-8B41-0008.0000
FG	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-8B36-0002.0000
FH	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-8B36-0023.0000
FI	BUSINESS DEV CORP OF THE NORTHERN PANHANDLE	01-836B-0117.0000
FJ	OHIO RIVER (STATE OF WEST VIRGINIA)	OHIO RIVER
FK	BROWNLEE LAND VENTURES, LP	01-8B31-0007.0000
FL	BROWNLEE LAND VENTURES, LP	01-8B31-0008.0000
FM	ROSSO ENTERPRISES, LLC (A WEST VIRGINIA CORPORATION)	01-8B31-0008.0001
FN	WHEELING LAND DEVELOPMENT CORPORATION	01-8B31-0006.0000
FO	WHEELING LAND DEVELOPMENT CORPORATION	01-8B31-0005.0001
FP	WEST VIRGINIA DEPARTMENT OF HIGHWAYS	03-827-0011.0000
FQ	CHRISTIAN LIFE APOSTOLIC CHURCH	01-8B31-0046.0000
FR	RYAN M. & MISTY D. WILLIAMS	01-8B31-0045.0000
FS	LEON W. FALCON, CRAIG A. FALCON & CARL J. FALCON	01-8B31-0044.0000
FT	LEON W. FALCON, CRAIG A. FALCON & CARL J. FALCON	01-8B31-0043.0000
FU	KARLI A. SNYDER	01-8B31-0026.0000
FV	WILLIAM E. & SUSAN E. MALSON	01-8B31-0023.0000
FW	WILLIAM E. & SUSAN A. MALSON	01-8B31-0022.0000
FX	OTIS M., JR. & EDNA JO BAKER	01-8B31-0019.0000
FY	GARY LEE & WENDY FAITH BENNETT	01-8B31-0011.0000
FZ	GARY LEE & WENDY FAITH BENNETT	01-8B31-0010.0000
GA	EMASES PROPERTIES, LLC	01-8B31-0009.0000
GB	JEFFREY A. & AMY J. GIBSON	01-836B-0122.0000
GC	JOSEPH H. HODGES	01-836B-0121.0000
GD	JOYCE A. SMITH	01-836B-0120.0000
GE	EMASES PROPERTIES, LLC	01-836B-0121.0001
GF	LARRY WILLIAM COUCH (L/E: JEAN COUCH)	01-836B-0124.0000
GG	EDWARD A. CONERY	01-836B-0125.0000
GH	LOUIS & ARLINE MILLER	01-836-0005.0000
GI	LOUIS & ARLINE MILLER	03-836-0006.0000
GJ	ELVINA WELLS BUCY	03-831-0074.0000
GK	BERNARD J. LOMBARD III	03-831-0081.0000
GL	STEPHEN A. FODOR & JUDY L. BROWNLEE	03-836-0176.0000
GM	JOHN R. HOFFMAN & ALICE J. BUCHANAN	03-836-0175.0000
GN	PAUL D. & KIMBERLY D. LEONARD	03-836-0173.0000
GO	BRANNON P. & EMILY M. LEONARD	03-836-0172.0000
GP	BRANNON P. & EMILY M. LEONARD	03-836-0171.0000
GQ	HARLEY J. LEMASTERS	03-836-0170.0000
GR	HARLEY J. LEMASTERS	03-8360-0047.0000
GS	HARLEY J. LEMASTERS	03-8360-0046.0000
GT	HARLEY J. LEMASTERS	03-8360-0045.0000
GU	HARLEY J. LEMASTERS	03-8360-0044.0000
GV	HARLEY J. LEMASTERS	03-8360-0043.0000
GW	HARLEY J. LEMASTERS	03-8360-0042.0000
GX	HARLEY J. LEMASTERS	03-8360-0041.0000
GY	LESTER & KATHERINE WALLACE	03-8360-0001.0000
GZ	TONYA S. LOWE	03-836-0011.0000
HA	WINDSOR COAL COMPANY	03-836-0024.0000
HB	WINDSOR COAL COMPANY	03-836-0022.0000
HC	WINDSOR COAL COMPANY	03-836-0021.0000
HD	FLOYD R. & DORIS M. LOUGHRIE	03-836-0032.0000
HE	WINDSOR COAL COMPANY	03-836-0036.0000
HF	KEITH L. HAMILTON	03-836-0035.0000
HG	KEITH L. HAMILTON	03-836-0037.0000
HH	FLOYD R. & DORIS M. LOUGHRIE	03-836-0038.0000
HI	BRIAN L. TESLOVICH	03-836-0145.0000
HJ	COLUMBIA GAS COMPANY	03-836-0144.0000
HK	BEECH BOTTOM VOLUNTEER FIRE DEPARTMENT	03-836-0105.0000
HL	TREVOR SEAN RICHMAN	03-836-0106.0000
HM	MARK PHILLIPS (J), GAL ATKINSON (J) & ET AL	03-836-0107.0000
HN	CAROL L. DUFFY	03-836-0113.0000
HO	LORETTA JOAN BASIL	03-841-0099.0000
HP	ERNEST F. & JOANNE P. CAPP	03-841-0098.0000
HQ	ELIZABETH ELLEN FLUHARTY	03-841-0095.0000
HR	DANIEL R. GORBY	03-841-0061.0006
HS	COREY CONLEY	03-841-0061.0005
HT	CARL & JUDITH SPENCER	03-841-0065.0000
HU	EMILY J. HUFFNER	03-841-0065.0001
HV	CARL E. & JUDITH SPENCER	03-841-0066.0000
HW	SANDRA W. BUTLER	03-841-0061.0004
HX	ROBERT LEE & DELMA LOU HUFFMAN	03-841-0067.0000
HY	SANDRA W. BUTLER	03-841-0068.0000
HZ	SANDRA W. BUTLER	03-841-0069.0000
IA	SANDRA W. BUTLER	03-841-0071.0000
IB	SANDRA W. BUTLER	03-842-0078.0000
IC	JAY G. COLLINS	03-841-0079.0000
ID	JOSEPH P. SCRIP, SR. & ROBIN M. SCRIP	03-841-0080.0002
IE	SHAWN M. SINES	03-841-0085.0000
IF	HENRY MIKELS & BONNIE J. BURKETT	03-841-0086.0001
IG	JASON D. & MARY E. WHITE	03-841-0088.0000
IH	ROBERT D. HILDEBRAND, II & LESLIE C. HILDEBRAND	03-842-0063.0000
II	FRANK C. & KELLY L. ANSCOUGH	03-842-0071.0000
IJ	HENRY HEINZEROTH	03-842-0032.0000
IK	LUTHER GRIZZEL	03-842-0030.0000
IL	KATHY LYNN MAYHEW, MICHAEL MAYHEW & ET AL	03-842-0027.0000
IM	BRIAN B. & CASEY K. RICHARDSON	03-836-0020.0000

REVISIONS:

COMPANY:

**SWN**  
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**SWN** <sup>R-V+</sup>  
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