

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

API 47-069-00282 County OHIO District RICHLAND  
Quad TILTONSVILLE, OH / WHEELING, WV Pad Name RAYLE COAL-OHI-PAD1 Field/Pool Name PANHANDLE FIELD WET  
Farm name RAYLE COAL COMPANY Well Number RAYLE COAL OHI 406H  
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 4,445,755.83 Easting 531,775.04  
Landing Point of Curve Northing 4,444,305.25 Easting 531,214.07  
Bottom Hole Northing 4,441,014.27 Easting 531,928.26

Elevation (ft) 1063.8' 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

Date permit issued 08/06/2018 Date drilling commenced 09/13/2018 Date drilling ceased 09/29/2018  
Date completion activities began 03/06/2019 Date completion activities ceased 04/28/2019  
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 290' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 555' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 242' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

**Reviewed**

*C. [Signature]* 9.9.19

Reviewed by: SB 9.9.19

API 47- 069 - 00282 Farm name RAYLE COAL COMPANY Well number RAYLE COAL OHI 406H

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	371	NEW	J-55/54.5#	208.0/149.4	Y
Coal							
Intermediate 1	12.25	9.625	1,736	NEW	J-55/36#		Y
Intermediate 2	12.25	9.625					
Intermediate 3							
Production	8.75/8.50	5.5	21,908	NEW	HCP-110/20#		Y
Tubing		2.375	7,006	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 <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	487	15.60	1.20	584.4	SURFACE	8
Coal							
Intermediate 1	CLASS A	707	15.60	1.20	848.4	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	4,189	15.60	1.19	4,984.91	SURFACE	24
Tubing							

Drillers TD (ft) 21,908' Loggers TD (ft) 21,908'  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5,580'

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 \_\_\_\_\_



API 47- 069 - 00282 Farm name RAYLE COAL COMPANY Well number RAYLE COAL OHI 406H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
MARCELLUS	5,925'	TVD	21,908' MD
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1441 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas 6,545 mcfpd Oil 1,077 bpd NGL \_\_\_\_\_ bpd Water 604 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 <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
	SEE	ATTACHMENT	3		

Please insert additional pages as applicable.

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

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

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

Stimulating Company SWN WELL SERVICES  
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Please insert additional pages as applicable.

Completed by Elizabeth Gee Telephone 832-796-7632  
Signature  Title Staff Regulatory Analyst Date 07/21/09

# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/6/2019
Job End Date:	3/28/2019
State:	West Virginia
County:	Ohio
API Number:	47-069-00282-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	Rayle Coal OHI 406
Latitude:	40.16156046
Longitude:	-80.62687085
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	5,872
Total Base Water Volume (gal):	22,181,172
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
Econo-CI200	SWN Well Services	Corrosion Inhibitor					
				Listed Below			
BIOC11219A	Nalco	Biocide					
				Listed Below			

Sand	SWN Well Services	Proppant												
						Listed Below								
HCL	SWN Well Services	Solvent												
						Listed Below								
SWN FRW-13LA	SWN Well Services	Friction Reducer												
						Listed Below								
SCAL16486A	Nalco	Scale Inhibitor												
						Listed Below								
Base Water	Operator	Base Fluid												
						Listed Below								
Ecopol-FEAC	SWN Well Services	Iron Control												
						Listed Below								
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.														
					Water	7732-18-5	100.00000	84.25140	Density = 8.345					
					Crystalline Silica, quartz	14808-60-7	100.00000	13.21854						
					Water	7732-18-5	85.00000	1.22520						
					Petroleum Distillates, Hydrotreated	64742-47-8	45.00000	0.91983						
					Ethylene glycol	107-21-1	10.00000	0.20644						
					Hydrochloric Acid	7647-01-0	15.00000	0.06767						
					Fatty alcohols ethoxylated	Proprietary	2.00000	0.04088						

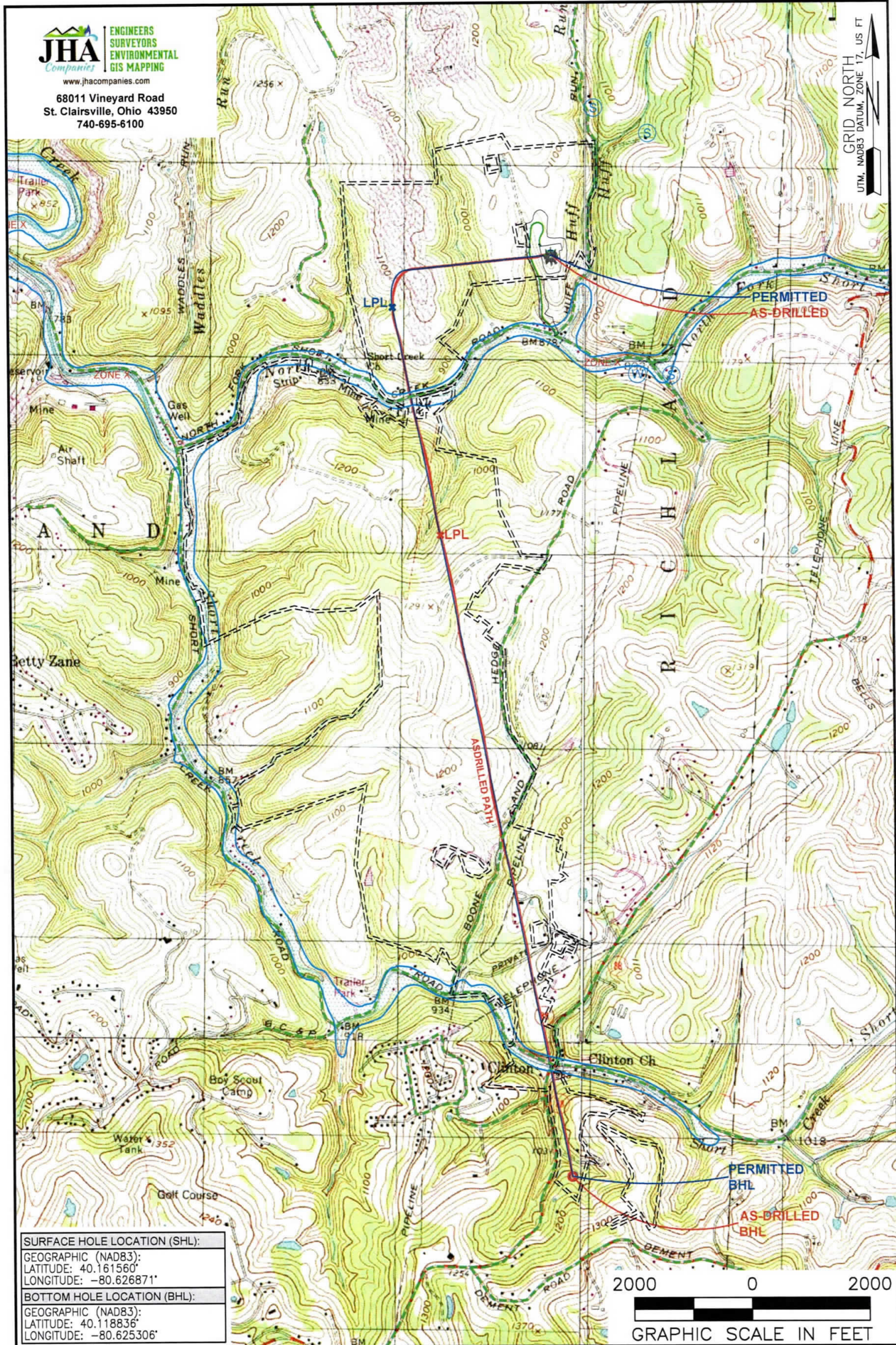
				Alcohols, C12-C16, Ethoxylated propoxylated	68213-24-1	2.00000	0.04088
				Methanol	67-56-1	60.00000	0.01500
				Benzyl-(C12-C16 Alky)-Dimethyl-Ammonium	68424-85-1	30.00000	0.00750
				Chloride Glutaraldehyde	111-30-8	10.00000	0.00250
				Amine Triphosphate	Proprietary	30.00000	0.00203
				Acetic Acid	64-19-7	37.50000	0.00090
				Methanol	67-56-1	80.00000	0.00055
				Citric Acid	77-92-9	22.50000	0.00054
				Oxyalkylated fatty acid	68951-67-7	9.67400	0.00007
				Fatty acids	61790-12-3	5.02700	0.00003
				Modified thiourea polymer	68527-49-1	4.74600	0.00003
				Potassium acetate	127-08-2	0.02200	0.00000
				Formaldehyde	50-00-0	0.00400	0.00000

\* 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)



**SURFACE HOLE LOCATION (SHL):**  
 GEOGRAPHIC (NAD83):  
 LATITUDE: 40.161560°  
 LONGITUDE: -80.626871°  
**BOTTOM HOLE LOCATION (BHL):**  
 GEOGRAPHIC (NAD83):  
 LATITUDE: 40.118836°  
 LONGITUDE: -80.625306°

- NOTES ON SURVEY**
1. 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.
  2. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
  3. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

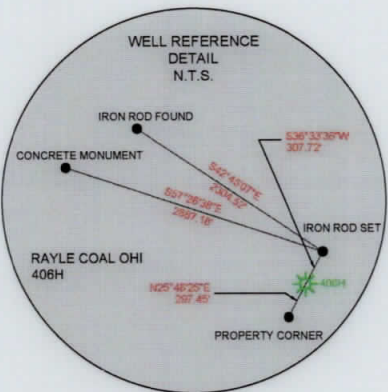
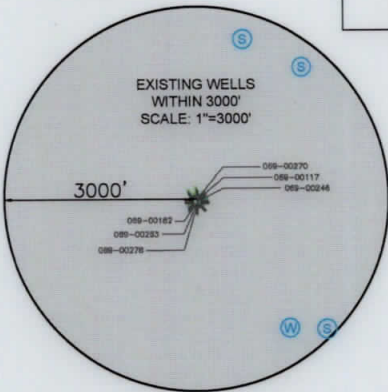
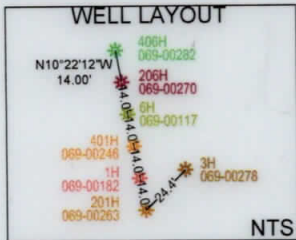
**LEGEND:**

- 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
- LEASE BOUNDARY
- PROPOSED PATH
- AS-DRILLED PATH
- FLOOD PLAIN

<b>WELL OPERATOR:</b> SWN PRODUCTION COMPANY, LLC	<b>WELL (FARM) NAME:</b> RAYLE COAL OHI	<b>WELL #</b> 406H	<b>SERIAL #</b> XXXX
<b>ADDRESS:</b> 1300 FORT PIERPONT DRIVE, SUITE 201, MORGANTOWN, WV 26508	<b>COUNTY:</b> OHIO	<b>CODE:</b> 069	<b>DISTRICT:</b> RICHLAND
<b>SURFACE OWNER:</b> RAYLE COAL COMPANY	<b>USGS 7 1/2 QUADRANGLE MAP NAME:</b> TILTONVILLE, OH / WHEELING, WV		
			<b>API #</b> 47-069-00282



**JHA** Companies  
**ENGINEERS SURVEYORS ENVIRONMENTAL GIS MAPPING**  
 www.jhacompanies.com  
 68011 Vineyard Road  
 St. Clairsville, Ohio 43950  
 740-695-6100



LATITUDE: 40°10'00" SURFACE HOLE (2000' SCALE)  
 LATITUDE: 40°07'30" BOTTOM HOLE (2000' SCALE)

519'

79'

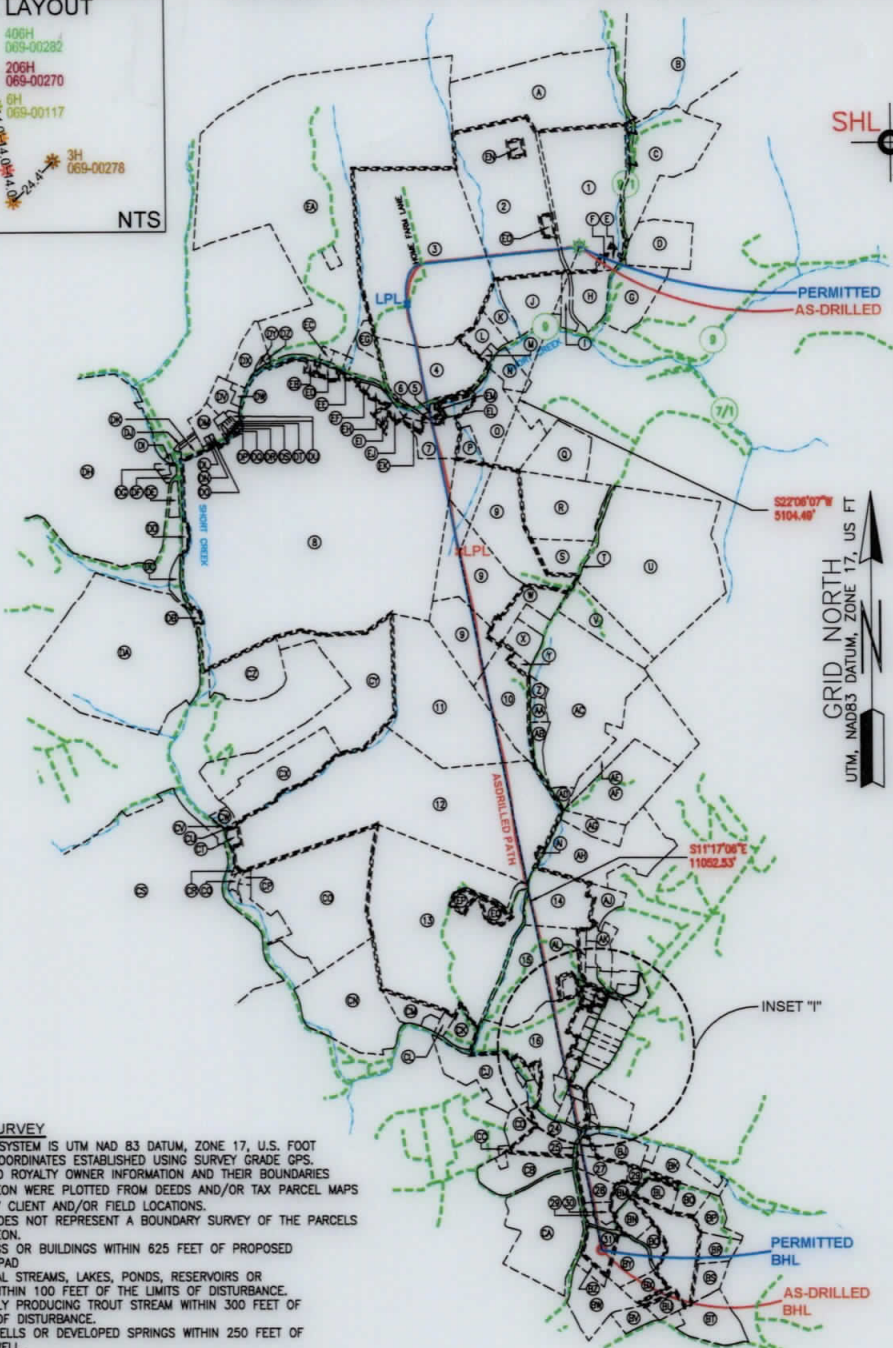
2211'

1878'

BHL

LONGITUDE: 80°37'30" BOTTOM HOLE (2000' SCALE)

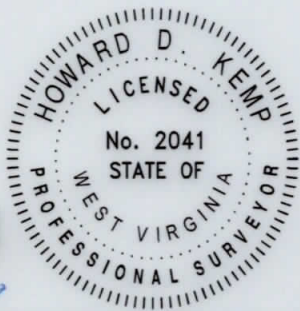
LONGITUDE: 80°37'30" SURFACE HOLE (2000' SCALE)



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

<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445755.83 EASTING: 531775.04
<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445476.09 EASTING: 530958.07
<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4441014.50 EASTING: 531931.11
<b>SURFACE HOLE LOCATION (SHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4445755.83 EASTING: 531775.04
<b>LANDING POINT LOCATION (LPL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4444305.25 EASTING: 531214.07
<b>BOTTOM HOLE LOCATION (BHL):</b> UTM (NAD83, ZONE 17, METERS): NORTHING: 4441014.27 EASTING: 531928.26

- 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.
  - THIS AS-DRILLED PLAT IS PREPARED FROM THE FINAL WELL PLAT PREPARED BY ANOTHER CONSULTANT AND THE DRILLING INFORMATION IS PROVIDED TO JHA.



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

COMPANY: **SWN** Production Company, LLC

WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25034	(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS MINIMUM DEGREE OF ACCURACY: 1/200 PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)	COMPANY: <b>SWN</b> Production Company, LLC OPERATOR'S WELL #: 406H API WELL #: 47 069 00282 STATE COUNTY PERMIT
	WELL TYPE: OIL <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> PRODUCTION <input checked="" 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: UPPER OHIO SOUTH DISTRICT: RICHLAND COUNTY: OHIO SURFACE OWNER: RAYLE COAL COMPANY OIL & GAS ROYALTY OWNER: RAYLE COAL COMPANY

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"/> CONVERT <input type="checkbox"/> PLUG & ABANDON <input type="checkbox"/> CLEAN OUT & REPLUG <input type="checkbox"/> OTHER CHANGE <input checked="" type="checkbox"/> (SPECIFY) AS-DRILLED TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 5,925' TVD 21,908' TMD
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WELL OPERATOR: SWN PRODUCTION COMPANY, LLC ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508	DESIGNATED AGENT: BRITTANY WOODY ADDRESS: 1300 FORT PIERPONT DRIVE, SUITE 201 CITY: MORGANTOWN STATE: WV ZIP CODE: 26508
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<b>LEGEND:</b> ● EXISTING BOTTOM HOLE * EXISTING / PRODUCING WELLHEAD LPL* EXISTING LANDING POINT LOCATION ○ PROPOSED SURFACE HOLE / BOTTOM HOLE LPL* PROPOSED LANDING POINT LOCATION ● EXISTING WATER WELL ○ EXISTING SPRING — SURVEYED BOUNDARY = = = LEASE BOUNDARY — AS DRILLED PATH — PROPOSED PATH	<b>REVISIONS:</b> DATE: 07-09-2019 API NO: 47-069-00282 DRAWN BY: D. REED SCALE: 1" = 3000' DRAWING NO: 2018-864 WELL LOCATION PLAT
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WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	RAYLE COAL COMPANY (S/R)	04-R6-0017.0004
TRACT	SURFACE OWNER	TAX PARCEL
2	RAYLE COAL COMPANY	04-R6-0017.0000
3	MARC SEAMON	04-R6-0037.0000
4	MARC SEAMON	04-R6-0037.0001
5	JAMES W. & TERESA L. PERRY	04-R9-0014.0006
6	LEWIS A. PERRY, JR. & SHARON PERRY	04-R9-0014.0007
7	HELEN M. PERRY (LIFE ESTATE) & ET AL	04-R9-0014.0002
8	AMERICAN DISPOSAL SERVICES	04-R8-0015.0000
9	JORDAN & GAYLE WEBER	04-R9-0009.0000
10	L.R. HOPKINS, JR. & R.F. DELATORE	04-R9-0005.0000
11	AMERICAN DISPOSAL SERVICES OF WV	04-R8-0061.0000
12	TUNNEL RIDGE, LLC	04-R8-0061.0004
13	JOSEPH ELIAS	04-R12-0001.0000
14	DOMINIC J. & SHERRIE D. COTTRELL	04-R12-0019.0030
15	ROBERT E. JONES LIVING TRUST	04-R12-0018.0000
16	MICHAEL T. & MICHELLE LYNN RATCLIFFE	04-R12-0023.0015
17	CHRISTOPHER T. GEORGE & AMBER D. GEORGE	04-R12-0023.0021
18	ROLLIN P. BOHN & TARA BOHN	04-R12-0023.0022
19	HOLLY J. ZAHNOW	04-R12-0023.0024
20	BRIAN K. & STACEY L. PAGE	04-R12-0023.0007
21	LORI JEAN HENRY	04-R12-0023.0014
22	LORI JEAN HENRY	04-R12-0023.0001
23	LORI JEAN HENRY	04-R12-999.9999
24	LORI JEAN HENRY	04-R12-0007.0000
25	WV DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS	BETHANY PIKE
26	LORI HENRY (C/O: HENRY'S SERVICE STATION)	04-R12-0029.0000
27	NOEL KAREN & SCOTT R. YOCUM	04-R12-0045.0017
28	RYAN RIES & DANIELLE WASSAM	04-R12-0045.0020
29	JOHN A. TARR, IV	04-R12-0045.0000
30	JOHN A. TARR, III	04-R12-0045.0009
31	JONATHAN D. LECHNER	04-R12-0045.0012

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
A	SHORT CREEK COAL COMPANY	04-R6-0017.0003
B	WINDSOR COAL COMPANY	04-R6-0012.0000
C	WAYNE E. SHOOK	04-R6-0015.0000
D	GLADYS & WINDELL H., II GOFF	04-R6-0027.0001
E	STELLA M. & KATHLEEN J. BRYAN	04-R6-0017.0001
F	WINDSOR COAL COMPANY	04-R6-0025.0000
G	GLADYS GOFF & WINDELL H. GOFF, II	04-R6-0024.0003
H	RICHARD A. WOOD, JR.	04-R6-0024.0006
I	LOUIS J., JR. & GRETCHEN L. ENNIS	04-R6-0019.0002
J	SEAN A. SISARCICK	04-R6-0019.0000
K	PAMELA S. LOUGH	04-R6-0019.0004
L	PAMELA S. LOUGH	04-R6-0019.0001
M	STEVEN E. & S.D. DUNCIL	04-R9-0022.0001
N	DAVID M. & MARY H. ZIEGLER	04-R9-0022.0002
O	HELEN M. PERRY (LIFE ESTATE) & ET AL	04-R9-0014.0001
P	CHARLES R. & PHYLLIS J. KELLAM	04-R9-0022.0010
Q	DAVID B. & L.M. MAIN	04-R9-0010.0001
R	DAVID B. & L.M. MAIN	04-R9-0010.0000
S	CLAIRE M. CAVENEY	04-R9-0003.0000
T	CLAIRE M. CAVENEY	04-R9-0010.0002
U	CLAIRE M. CAVENEY	04-R9-0003.0000
V	WESBANCO TRUST & INVESTMENT SERVICES	04-R9-0016.0001
W	NICHOLAS P. KLAMUT	04-R9-0012.0000
X	JEWELL A. & RODNEY L. MONROE	04-R9-0005.0002
Y	LEWIS R., JR. & ROSEANN HOPKINS	04-R9-0008.0000
Z	LEWIS R., JR. & R. HOPKINS	04-R9-0004.0000
AA	LEWIS R., JR. & R.F. HOPKINS	04-R6-0017.0003
AB	WILLIAM ISAAC SERTICH MERIDITH KNIGHT	04-R9-0003.0007
AC	DONNA MARTIN EVANS	04-R9-0003.0005
AD	BETH ANNE KENNEDY	04-R9-0003.0004
AE	RCK 2 GROUP, LLC	04-R9-0027.0000
AF	RCK 2 GROUP (ATTN: KAYLEEN FITZSIMMONS)	04-R9-0001.0000
AG	WILLIAM H. & C.L. REUTHER	04-R9-0002.0000
AH	BRADFORD & NANNETTA HARTLEY	04-R9-0001.0003
AI	GREGORY TAGGART	04-R9-0050.0000
AJ	DOMINIC J. & SHERRIE D. COTTRELL	04-R12-0019.0034
AK	DENNIS E. & ANNA M. LAWTHER	04-R12-0019.0035
AL	COLUMBIA GAS TRANSMISSION CORPORATION	04-R12-0019.0001
AM	STEPHEN E. & DEBORAH E. KEDING	04-R12-0019.0021
AN	DANIEL HARRIMAN	04-R12-0018.0002
AO	DANIEL M. HARRIMAN	04-R12-0018.0001
AP	CARLEY & CHRISTOPHER ELSWICK	04-R12-0021.0000
AQ	EDWARD A. & K.L. WOODS	04-R12-0021.0001
AR	LAWRENCE WITZBERGER, IV	04-R12-0019.0005
AS	NANCY WITZBERGER	04-R12-0023.0002
AT	MATTHEW J. & TISHA L. PAREE	04-R12-0023.0011
AU	MATTHEW D. MENDELSON	04-R12-0023.0001
AV	ANN F. THOMAS	04-R12-0023.0013
AW	ANN F. THOMAS	04-R12-0023.0012

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
AX	JOHN DAVID & JENNIFER LYNN MILLER	04-R12-0023.0026
AY	MICHAEL THOMAS & MICHELLE LYNN RATCLIFFE	04-R12-0023.0016
AZ	LAWRENCE W., III & J.C. WITZBERGER	04-R12-0022.0000
BA	TISH L. PAREE, NELSON PAREE, DALE PAREE & PAMELA PAREE	04-R12-0023.0023
BB	MATTHEW J. & TISHA L. PAREE	04-R12-0022.0020
BC	MATTHEW J. & TISHA PAREE	04-R12-0022.0006
BD	HARRY A. RUMIS, JR. & EDITH J. RUMIS	04-R12-0023.0000
BE	MARY M. GORNEY (LIFE ESTATE)	04-R12-0024.0000
BF	LORI JEAN HENRY	04-R12-0025.0000
BG	LORI JEAN HENRY	04-R12-0026.0000
BH	LORI JEAN HENRY	04-R12-0027.0000
BI	HENRY'S SERVICE STATION (C/O: LORI JEAN HENRY)	04-R12-0028.0001
BJ	LORI J. HENRY (C/O: HENRY'S SERVICE STATION)	04-R12-0031.0000
BK	KATHLEEN E. & KEVIN J. TAYLOR	04-R12-0044.0000
BL	JESSICA YBANEZ-MORANO	04-R12-0045.0011
BM	CARL BAROSSO & MARIE GIACOMAZZA	04-R12-0045.0019
BN	JOHN A. TARR, IV & SABRINA M. TARR	04-R12-0045.0013
BO	JEFFREY & ANGELA M. TENNANT	04-R12-0045.0007
BP	DALE SMITH, II & KAREN L. SMITH	04-R12-0045.0010
BQ	MILTON E. & JOAN S. NUGENT	04-R12-0045.0006
BR	JAMES & ANNA BOUGHER	04-R12-0045.0005
BS	TINA L. PHILLIPS & ELIZABETH A. PADDEN	04-R12-0045.0008
BT	PHILLIP D. HIGH	04-R12-0045.0003
BU	GILBERT ALLAN & LUCILLE ELIZABETH BROWN	04-R12-0045.0004
BV	G. ALLAN & L.E. BROWN	04-R12-0047.0000
BW	ROBERT L. & PATRICIA J. WEISS, IRREVOCABLE TRUST	04-R12-0046.0000
BX	KERRIE WEISENBORN (C/O: STEPHEN R. FOX)	04-R12-0045.0015
BY	CHRISTOPHER & CHRISTINE TARR	04-R12-0045.0014
BZ	JONAHTON D. LECHNER, MD	04-R12-0046.0001
CA	MULL W. QUAY, II TRUST	04-R12-0012.0000
CB	MICHAEL S. & SHELIA M. LITTLE	04-R12-0013.0000
CC	STEPHANIE HELLER	04-R12J-0050.0000
CD	RONALD A. & LYNN M. KAMINSKI	04-R12-0045.0000
CE	KARYL LEE DONALDSON	04-R12-0016.0000
CF	RALPH R. BURKHART, JR.	04-R12-0023.0019
CG	RALPH R. BURKHART, JR.	04-R12-0023.0017
CH	DAVID P. DEFRANCO & KRISTY A. DEFRANCO	04-R12-0023.0003
CI	STEPHEN E. & SHELLY D. DUNCIL	04-R12-0017.0000
CJ	SEAN P. & KATIE M. SMITH	04-R12E-0023.0029
CK	RELYKS, LLC	04-R12-0005.0000
CL	MARY ANN BURKHART	04-R12-0004.0000
CM	DAVID J. MILLER, JR. & MARY ANN BURKHART	04-R12-0002.0000
CN	HOWARD L. & B.M. SHACKELFORD	04-R11-0035.0002
CO	TUNNEL RIDGE, LLC	04-R12-0001.0003
CP	TUNNEL RIDGE, LLC	04-R11-0034.0003
CQ	TUNNEL RIDGE, LLC	04-R11-0034.0012
CR	TUNNEL RIDGE, LLC	04-R8-0061.0002
CS	SANDCREST FOUNDATION, INC	04-R11-0015.0000
CT	TUNNEL RIDGE, LLC	04-R8-0061.0001
CU	TUNNEL RIDGE, LLC	04-R8-0060.0001
CV	TUNNEL RIDGE, LLC	04-R8-0074.0000
CW	TUNNEL RIDGE, LLC	04-R8-0059.0000
CX	TUNNEL RIDGE, LLC	04-R8-0022.0001
CY	TUNNEL RIDGE, LLC	04-R8-0022.0000
CZ	TUNNEL RIDGE, LLC	04-R8-0021.0002
DA	TUNNEL RIDGE, LLC	04-R8-0027.0007
DB	TUNNEL RIDGE, LLC	04-R8-0027.0006
DC	TUNNEL RIDGE, LLC	04-R8-0015.0004
DD	CHARLES M. & M.M. MILLER	04-R8-0015.0003
DE	DOH	04-R8
DF	DEBRA S. SHEPHERD	04-R8-0015.0002
DG	LOUIS R. HERCULEES & ET AL	04-R8-0007.0000
DH	ALLIANCE RESOURCE GP, LLC	04-R8-0006.0000
DI	THOMAS & JUDITH K. TYLER	04-R8-0008.0008
DJ	SAM L. PELLEN, JR. & AMY M. PELLEN	04-R8-0008.0007
DK	SAM L. PELLEN, JR. & AMY M. PELLEN	04-R8-0008.0000
DL	HARRY J. & ROSALIE E. DAVIS	04-R8-0009.0001
DM	ARTHUR ENNIS & PEGGY CLARK	04-R8-0009.0000
DN	EUNICE MAE DAVIS	04-R8-0009.0003
DO	HAROLD & EUNICE MAE DAVIS	04-R8-0009.0002
DP	JOYCE ANN FARLEY	04-R8-0010.0001
DQ	JOYCE ANN FARLEY	04-R8-0010.0002
DR	BETTY L. SNYDER (C/O: PAULA MCGEE)	04-R8-0010.0000
DS	MARK D. MATTHIAS	04-R8-0011.0001
DT	MARK D. MATTHIAS	04-R8-0011.0000
DU	LANDRUM D. & RHONDA J. ROBBINS	04-R8-0013.0002
DV	RODNEY & A.J. ROBBINS	04-R8-0013.0000
DW	RICKIE SNYDER	04-R8-0014.0000
DX	ALLIED WASTE, INC	04-R8-0056.0000
DY	ALLIED WASTE, INC	04-R8-0056.0002
DZ	ALLIED WASTE, INC	04-R8-0056.0001

REVISIONS:

COMPANY:

**SWN**  
Production Company, LLC

**SWN** <sup>RT-V+</sup>  
Production Company™

OPERATOR'S

RAYLE COAL OHI

DATE: 07-09-2019

WELL #:

406H

API NO: 47-069-00282

DRAWN BY: D. REED

DISTRICT:  
RICHLAND

COUNTY:  
OHIO

STATE:  
WV

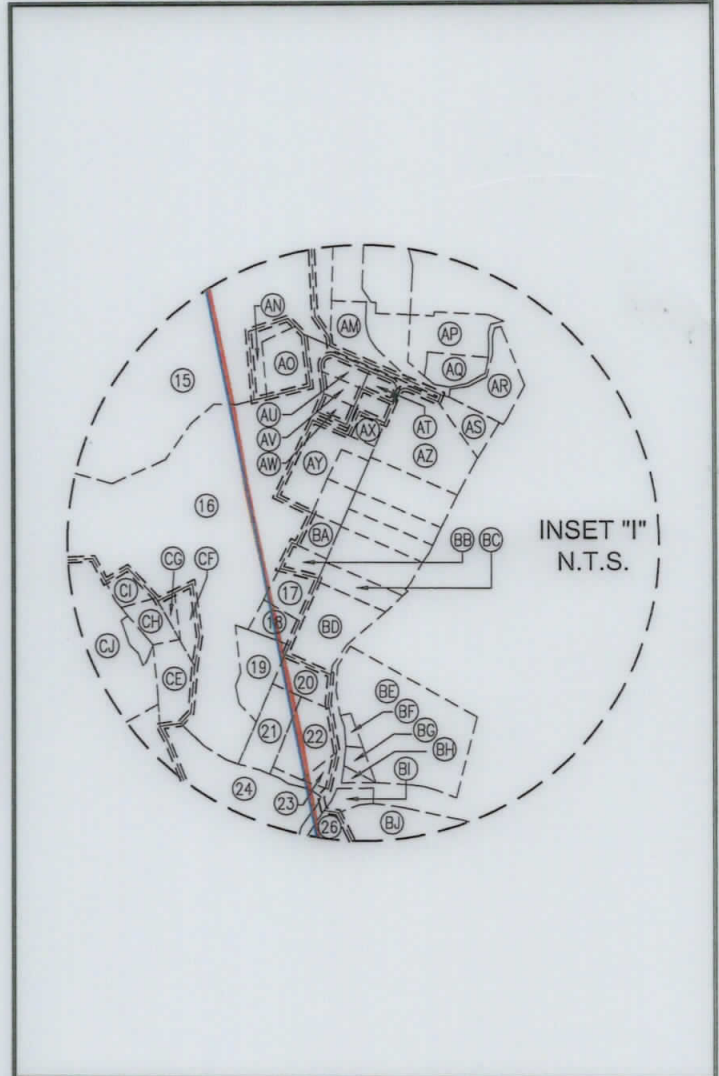
SCALE: N/A

DRAWING NO: 2018-864



WELL LOCATION PLAT

COMPLETION ID 2501164666  
PAD ID 3001155530

ADJOINING OWNERS TABLE		
TRACT	SURFACE OWNER	TAX PARCEL
EA	BOARD OF COMMISSIONERS OF OHIO COUNTY	04-R5-0055.0000
EB	LUTHER R. SMITH, II & D.F. SMITH	04-R8-0016.0001
EC	W. ERIC GADD & LISA NUZUM GADD	04-R5-0055.0003
ED	DELBERT E. & CAROL L. HUFFMAN	04-R8-0016.0002
EE	SHORT CREEK METHODIST E CHURCH	04-R5-0060.0000
EF	DELBERT E. HUFFMAN, JR.	04-R8-0018.0004
EG	SHORT CREEK CEMETERY ASSOCIATION, TRUSTEES	04-R5-0057.0000
EH	LUTHER R. SMITH, JR. & ELEANOR L. SMITH	04-R8-0018.0003
EI	JOHN E. HARWATT	04-R8-0018.0002
EJ	LUTHER R. SMITH, JR. & E.L. SMITH	04-R8-0018.0001
EK	LUTHER R. SMITH, JR. & E.L. SMITH	04-R9-0014.0004
EL	LEWIS A. PERRY, JR. & SHARON PERRY	04-R9-0014.0003
EM	JAMES W. & TERESA L. PERRY	04-R9-0014.0005
EN	WEIRTON NATIONAL BANK	04-R6-0017.0005
EO	RAYLE COAL COMPANY	04-R6-0017.0002
EP	ROBERT C. & PATRICIA L. KOTA	04-R12-0001.0002
EQ	MARK & LAURA DAWSON	04-R12-0001.0001



REVISIONS:


COMPANY:					
OPERATOR'S		RAYLE COAL OHI		DATE: 07-09-2019	
WELL #:		406H		API NO: 47-069-00282	
DISTRICT:		COUNTY:		STATE:	
RICHLAND		OHIO		WV	
				DRAWN BY: D. REED	
				SCALE: N/A	
				DRAWING NO: 2018-864	
				WELL LOCATION PLAT	