

06/14/2019



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, June 14, 2019
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

SWN PRODUCTION COMPANY, LLC
POST OFFICE BOX 12359
SPRING, TX 77391-4954
SPRIN

Re: Permit Modification Approval for CHARLES FRYE OHI 610H
47-069-00280-00-00

Extending lateral from 3464' to 6286.89'. Updated leases.

SWN PRODUCTION COMPANY, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is positioned above the printed name and title.

James A. Martin
Chief

Operator's Well Number: CHARLES FRYE OHI 610H
Farm Name: DORTHY V. FRYE (LIFE ESTATE), DAVID W. FRY
U.S. WELL NUMBER: 47-069-00280-00-00
Horizontal 6A New Drill
Date Modification Issued: 06/14/2019

Promoting a healthy environment.

WW-6B
(04/15)

API NO. 47-069 -
OPERATOR WELL NO. Charles Frye OHI 610H
Well Pad Name: Charles Frye OHI Pad

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: SWN Production Co., LLC 494512924 069-Ohio 6- Triade 648-Valley Grove
Operator ID County District Quadrangle

2) Operator's Well Number: Charles Frye OHI 610H Well Pad Name: Charles Frye OHI Pad

3) Farm Name/Surface Owner: Dorothy V. Frye (Life Estate), Amy M. Frye & Come L. Frye Public Road Access: McCutcheon Road

4) Elevation, current ground: 1267' Elevation, proposed post-construction: 1267'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow Deep _____
Horizontal

6) Existing Pad: Yes or No Yes

C-MO 5-7-19

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Down-Dip Well to the South, Target Top TVD- 6604', Target Base TVD- 6657', Anticipated Thickness- 53', Associated Pressure-4327

8) Proposed Total Vertical Depth: 6642'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 13,992'

11) Proposed Horizontal Leg Length: 6286.89'

12) Approximate Fresh Water Strata Depths: 548'

13) Method to Determine Fresh Water Depths: Nearby Water Well & Salinity Profile

14) Approximate Saltwater Depths: 774' Salinity profile analysis

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Office of Oil and Gas

15) Approximate Coal Seam Depths: 633'

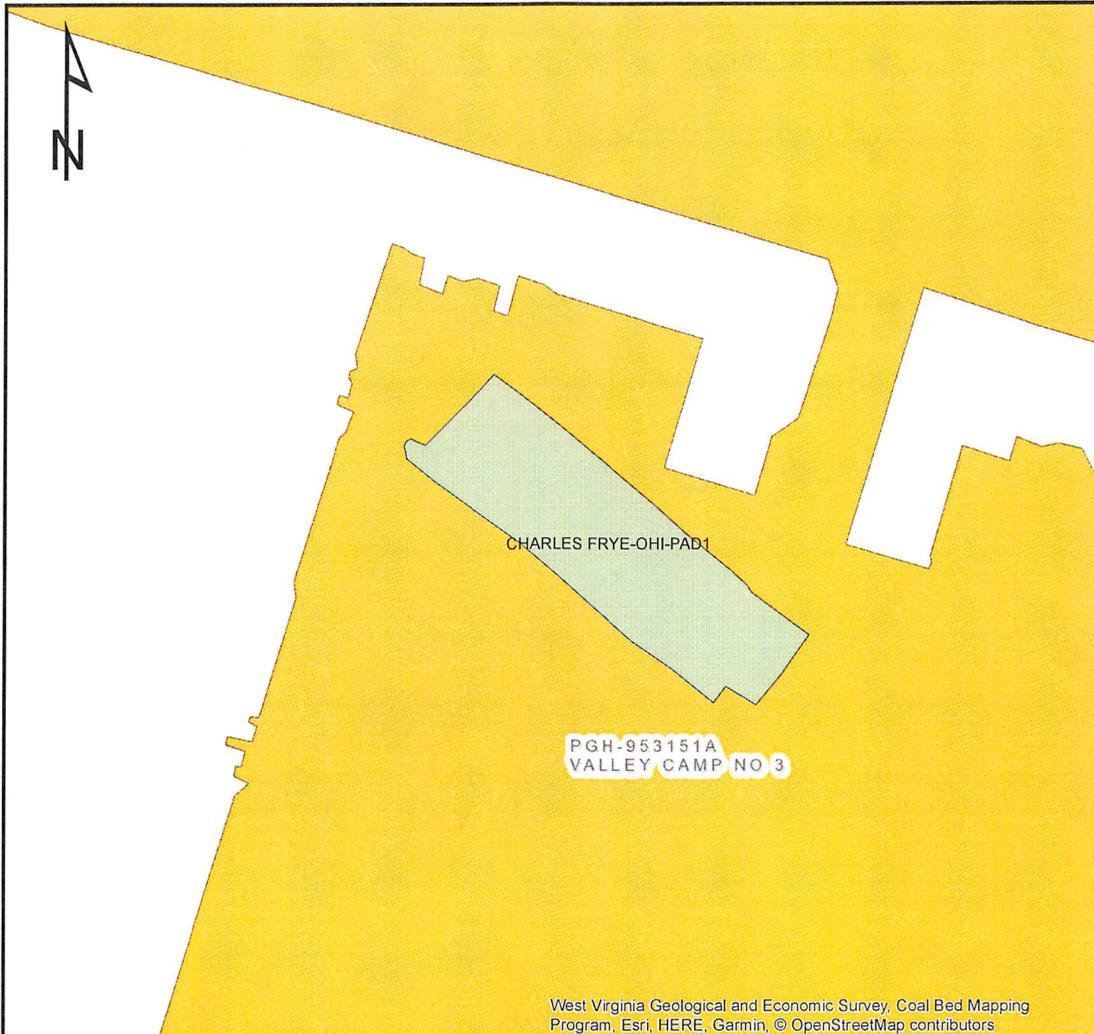
MAY 17 2019

16) Approximate Depth to Possible Void (coal mine, karst, other): 633' possible void

WV Department of
Environmental Protection

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____



WELL PAD: CHARLES FRYE OHI PAD1

VOID: YES NO

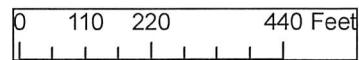
MINE: VALLEY CAMP NO. 3 MINE
 COMPANY: VALLEY CAMP COAL
 SEAM: PITTSBURGH
 DEPTH: 602'

ADJACENT TO ACTIVE MINE: YES NO

MINE: _____
 COMPANY: _____
 SEAM: _____
 DEPTH: _____

Legend

- VALLEY CAMP NO. 3 MINE
- CHARLES FRYE OHI PAD1



SWN
Southwestern Energy®

$$\frac{R^2}{A} \rightarrow V^+$$

WW-68
(04/15)

API NO. 47- 069 -
OPERATOR WELL NO. Charles Frye OH1 610H
Well Pad Name: Charles Frye OH1 Pad

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20"	New	H-40	94#	100'	100'	CTS
Fresh Water	13 3/8"	New	H-40	48#	688'	688'	642 sx/CTS
Coal	See	Surface	Casing				
Intermediate	9 5/8"	New	J-55	36#	2097'	2097'	787 sx/CTS
Production	5 1/2"	New	HCP-110	20#	13992'	13992' ✓	Head 880 at Top 1697' inside intermediate
Tubing							
Liners							

CPD 5-7-19

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.19/50% Excess
Fresh Water	13 3/8"	17.5"	0.380	2740	633	Class A	1.19/50% Excess
Coal	See	Surface	Casing				
Intermediate	9 5/8"	12 1/4"	0.395	3950	1768	Class A	1.19/50% Excess
Production	5 1/2"	8 3/4"	0.361	12360	9500	Class A	1.20/50% Excess
Tubing							
Liners							

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Office of Oil and Gas

PACKERS

MAY 17 2019

Kind:					WV Department of Environmental Protection
Sizes:					
Depths Set:					

WW-6B
(10/14)

API NO. 47- 069 -
OPERATOR WELL NO. Charles Frye OHI 610H
Well Pad Name: Charles Frye OHI Pad

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and stimulate any potential zones between and including the Benson to Marcellus. **If we should encounter a void place basket above and below void area- balance cement to bottom of void and grout from basket to surface or run external casing packer/cementing stage tool above void interval and perform 2 stage cementing operation dependent upon depth of void. Run casing not less than 20' below void nor more than 75' below void. (*If freshwater is encountered deeper than anticipated it must be protected, set casing 50' below and cts.)

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well will be perforated within the target formation and stimulated with a slurry of water, sand, and chemical additives at a high rate. This will be performed in stages with the plug and perf method along the wellbore until the entire lateral has been stimulated within the target formation. All stage plugs are then drilled out and the well is flowed back to surface. The well is produced through surface facilities consisting of high pressure production unites, vertical separation units, water and oil storage tanks. Max press and anticipated max rate- 9000 lbs @ 80 barrels a minute.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 13.6

22) Area to be disturbed for well pad only, less access road (acres): 12.0

23) Describe centralizer placement for each casing string:

All casing strings will be ran with a centralizer at a minimum of 1 per every 3 joints of casing.

24) Describe all cement additives associated with each cement type:

See Attachment ***

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Office of Oil and Gas

MAY 17 2019

WV Department of
Environmental Protection

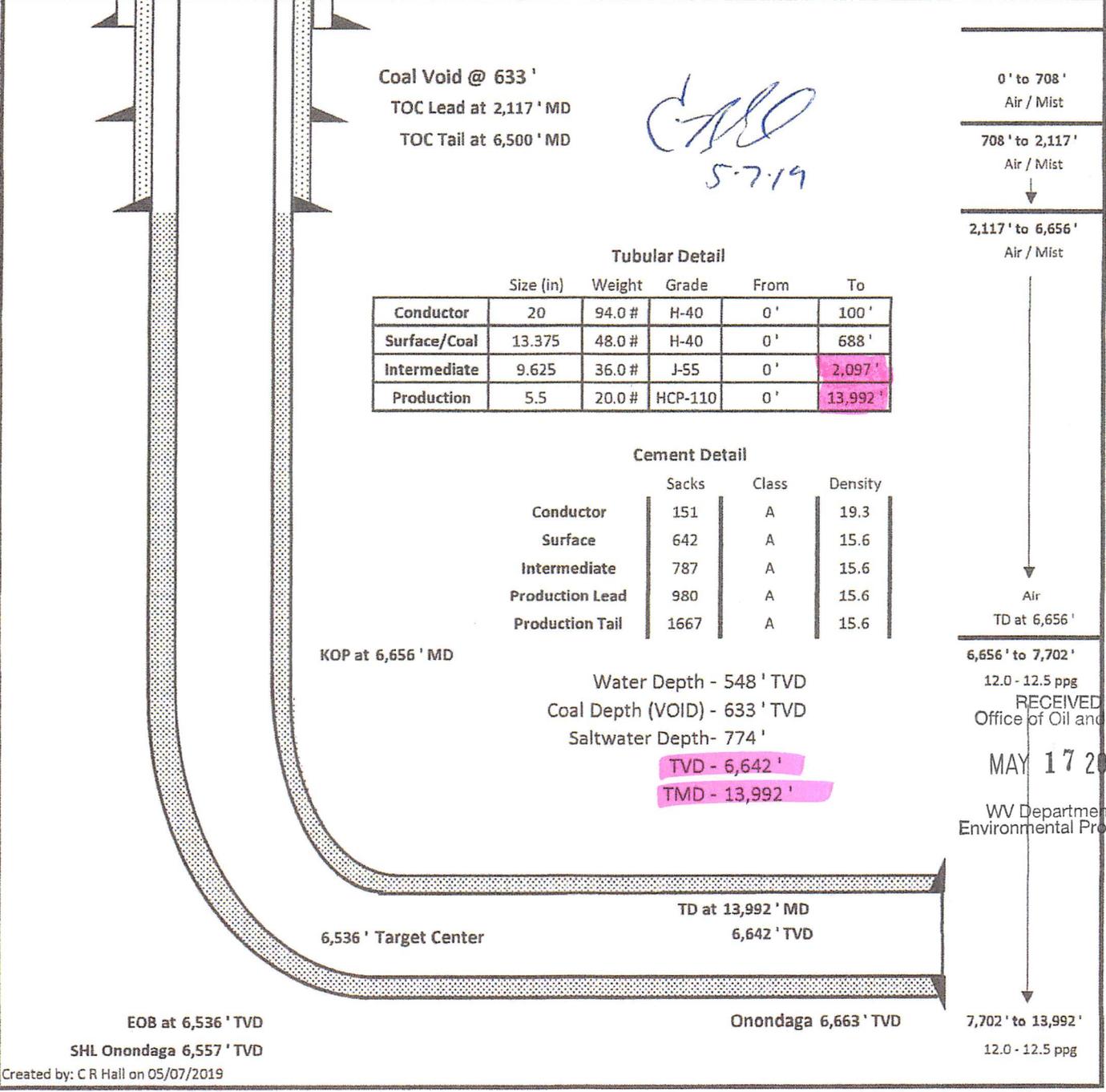
25) Proposed borehole conditioning procedures:

All boreholes will be conditioned with circulation and rotation for a minimum of one bottoms up and continuing until operator is satisfied with borehole conditions.

*Note: Attach additional sheets as needed.

Southwestern Energy Company	Proposed Drilling Program
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Well: CHARLES FRYE OHI 610 Field: PANHANDLE FIELD WET County: OHIO SHL: 40.0530 Latitude -80.5769 Longitude BHL: 40.0429 Latitude -80.5552 Longitude KB Elev: 1,293 ft MSL	Re-entry Rig: TBD Prospect: PANHANDLE State: WV GL Elev: 1,267 ft MSL
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Coal Void @ 633 '
 TOC Lead at 2,117 ' MD
 TOC Tail at 6,500 ' MD

C. Hall
 5-7-19

Tubular Detail

	Size (in)	Weight	Grade	From	To
Conductor	20	94.0 #	H-40	0'	100'
Surface/Coal	13.375	48.0 #	H-40	0'	688'
Intermediate	9.625	36.0 #	J-55	0'	2,097'
Production	5.5	20.0 #	HCP-110	0'	13,992'

Cement Detail

	Sacks	Class	Density
Conductor	151	A	19.3
Surface	642	A	15.6
Intermediate	787	A	15.6
Production Lead	980	A	15.6
Production Tail	1667	A	15.6

KOP at 6,656 ' MD

Water Depth - 548 ' TVD
 Coal Depth (VOID) - 633 ' TVD
 Saltwater Depth- 774 '

TVD - 6,642 '
 TMD - 13,992 '

6,536 ' Target Center

TD at 13,992 ' MD
 6,642 ' TVD

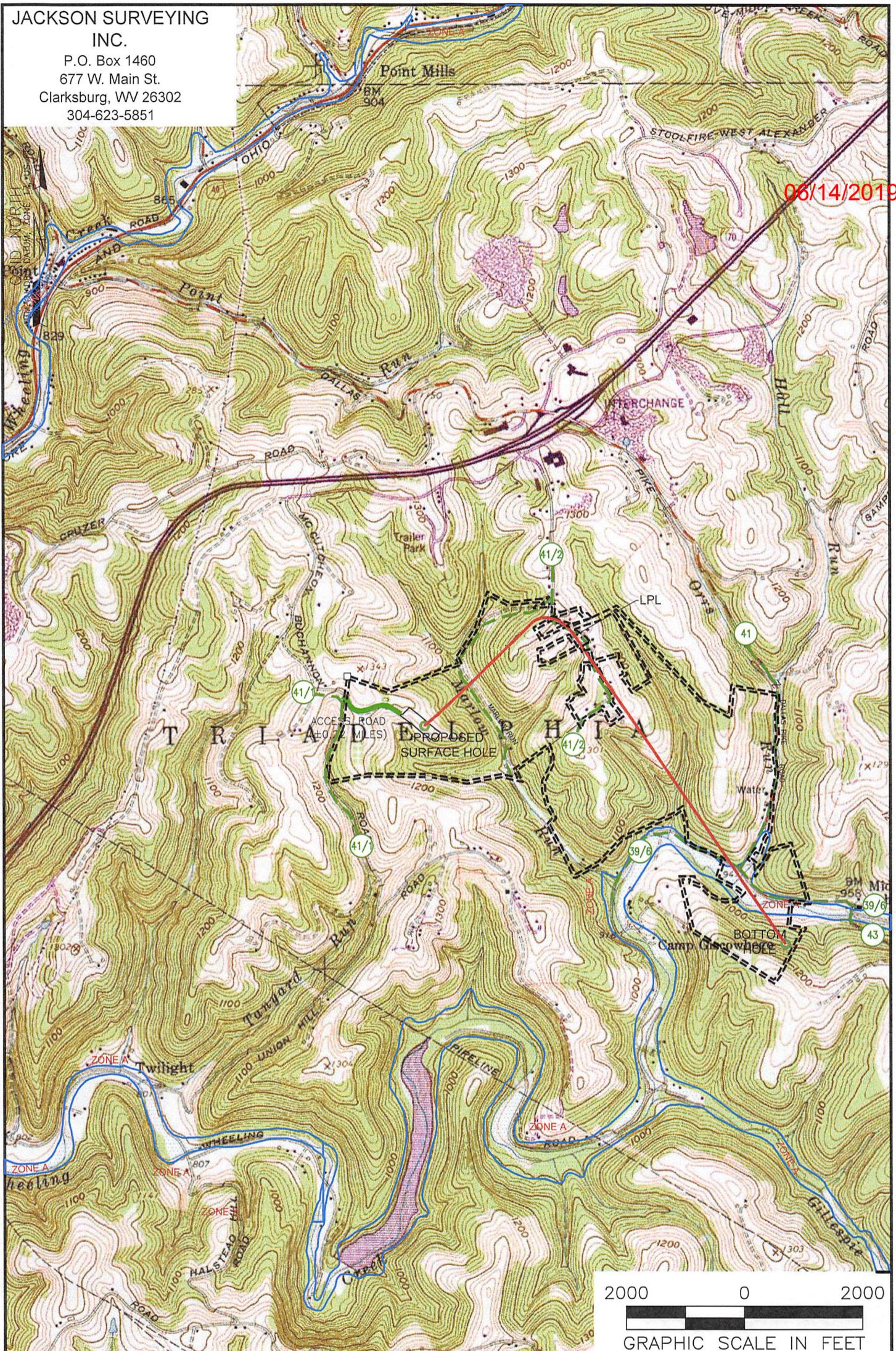
EOB at 6,536 ' TVD
 SHL Onondaga 6,557 ' TVD

Onondaga 6,663 ' TVD

**JACKSON SURVEYING
INC.**

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

06/14/2019



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.
4. ALL INSETS ARE GRID NORTH UNLESS OTHERWISE DEPICTED.

LEGEND:

- PROPOSED SURFACE HOLE / BOTTOM HOLE
- ⊗ EXISTING / PRODUCING WELLHEAD
- LPL * LANDING POINT LOCATION
- FLOOD PLAIN
- ACCESS ROAD
- PUBLIC ROAD
- ACCESS ROAD TO PREV. SITE
- LEASE BOUNDARY
- PROPOSED PATH

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC	WELL (FARM) NAME: CHARLES FRYE OHI	WELL # 610H	SERIAL #
ADDRESS: P.O. BOX 1300 JANE LEW, WV 26378	COUNTY - CODE OHIO - 069	DISTRICT; TRIADELPHIA	
SURFACE OWNER: DOROTHY V. FRYE (LIFE ESTATE), DAVID W. FRYE (LIFE OCCUPANCY), AMY M. FRYE & CORRIE L. FRYE (REMAINDERMAN)	USGS 7 1/2 QUADRANGLE MAP NAME VALLEY GROVE, WV	API #; 047-069-00280	

Latitude: 40°05'00"

SURFACE HOLE 9,861'

Latitude: 40°05'00" BOTTOM HOLE

3,782'

JACKSON SURVEYING INC.

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851

SURFACE HOLE LOCATION (SHL):

UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,433,730.849
EASTING: 536,087.140

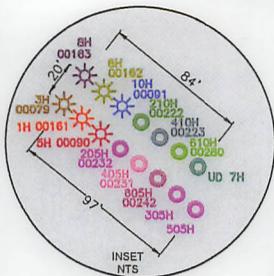
LANDING POINT (LPL):

UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,434,193.591
EASTING: 536,862.187

BOTTOM HOLE LOCATION (BHL):

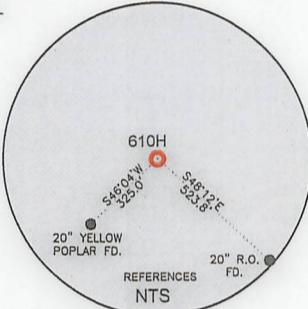
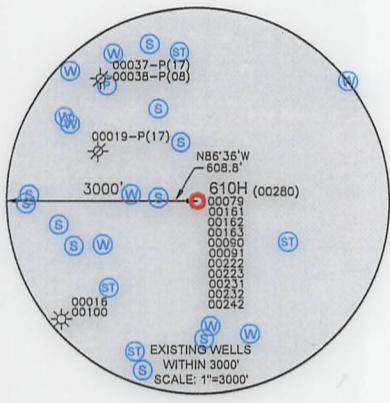
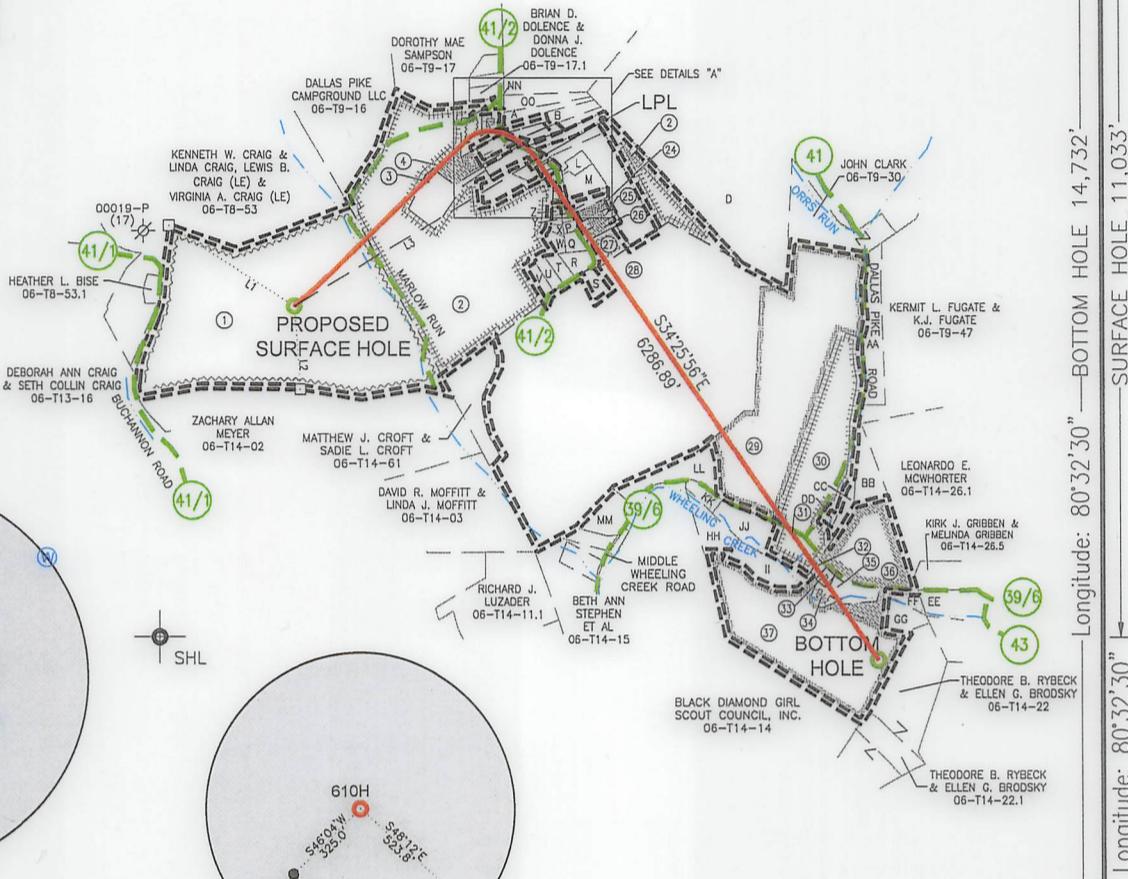
UTM (NAD83, ZONE 17, METERS):
NORTHING: 4,432,613.081
EASTING: 537,945.696

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



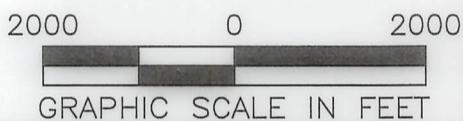
LINE	BEARING	DISTANCE	DESCRIPTION	MONUMENT
L1	N 57°20'46" W	1550.05'	SHL TO LANDMARK	CNR FENCE POST
L2	S 04°22'00" E	861.31'	SHL TO LANDMARK	LAPL FENCE LINE
LINE	BEARING	DISTANCE	CURVE LENGTH	DESCRIPTION
L3	N 59°09'38" E	2961.54'	3361.70'	SHL TO LPL

06/14/2019



- WELL RESTRICTIONS**
1. NO OCCUPIED DWELLINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
 2. NO AGRICULTURE BUILDINGS > 2500 SQ FT. WITHIN 625 FEET OF CENTER OF PAD.
 3. WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 250 FEET OF PROPOSED WELL.
 4. PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
 5. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
 6. NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

- 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.
- 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.



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 ELEVATION: GRADE GPS (NAVD 88, US FT)

OPERATOR'S WELL #: CHARLES FRYE OHI 610H

API WELL #: 47 STATE 069 COUNTY MOD #1 00280 PERMIT

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

WATERSHED: MARLOW RUN OF MIDDLE WHEELING CREEK OF WHEELING CREEK (HUC-10) ELEVATION: 1266.9'

DISTRICT: TRIADELPHIA COUNTY: OHIO QUADRANGLE: VALLEY GROVE, WV

SURFACE OWNER: DOROTHY V. FRYE (LIFE ESTATE), AMY M. FRYE & CORRIE L. FRYE (REMAINDERMAN) ACREAGE: ±105.00

OIL & GAS ROYALTY OWNER: DOROTHY V. FRYE, A WIDOW ACREAGE: ±105.00

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

CONVERT PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 6,642' TVD 13,992' TMD

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

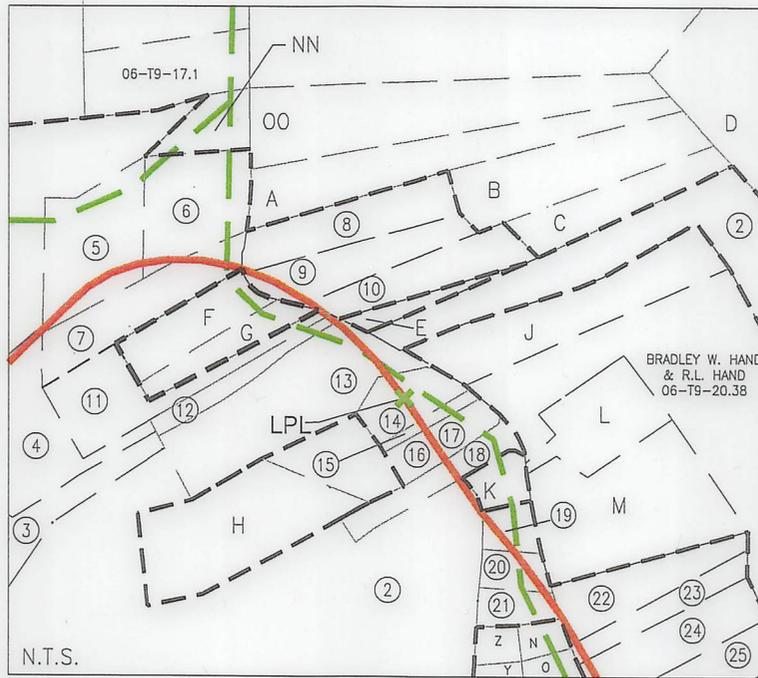
ADDRESS: 1300 FORT PIERPONT RD. SUITE 200 ADDRESS: 1300 FORT PIERPONT RD. SUITE 200

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

LEGEND:	REVISIONS:	DATE:
PROPOSED SURFACE HOLE / BOTTOM HOLE	SURVEYED BOUNDARY	05-15-2019
EXISTING / PRODUCING WELLHEAD	DRILLING UNIT	
LPL LANDING POINT LOCATION	LEASE BOUNDARY	DRAWN BY: N. MANO
EXISTING WATER WELL	PROPOSED PATH	SCALE: 1" = 2000'
EXISTING SPRING		DRAWING NO:
		WELL LOCATION PLAT

**JACKSON SURVEYING
INC.**

P.O. Box 1460
677 W. Main St.
Clarksburg, WV 26302
304-623-5851



06/14/2019

WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS			WELL BORE TABLE FOR SURFACE / ROYALTY OWNERS		
TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL
1	DOROTHY V. FRYE (LIFE ESTATE), AMY M. FRYE & CORRIE L. FRYE (REMAINDERMEN) (S)/ DOROTHY V. FRYE, A WIDOW (R)	06-T14-01	32	JOHN W. ORUM JR. & A.A. ORUM (S)	06-T14-23.4
			33	DOUGLAS BRIAN ORUM (S)	06-T14-23.9
			34	DOUGLAS BRIAN ORUM (S)	06-T14-23.5
			35	RONALD L. MCCORMICK (S)	06-T14-23.1
2	GEORGE L. DUNN & NANCY M. DUNN, (LIFE ESTATE), KATHERINE A. POSEY, CHRISTOPHER R. DUNN, RHONDA L. HAND & CONSTANCE L. KERCHER (REMAINDERMAN) (S)	06-T9-20	36	DOUGLAS BRIAN ORUM (S)	06-T14-23
			37	JOHN W. ORUM JR. (S)	06-T14-23.10
			ADJOINING OWNERS TABLE		
			TRACT	SURFACE OWNER	TAX PARCEL
3	SARAH ANN PORTER (S)	06-T9-20.44	A	JEREMY A. STEWART & AMANDA J. STEWART	06-T9-20.17
4	PHILLIP MARQUART & KERSTEN MARQUART (S)	06-T9-20.45	B	JAMES E. DUNN & DONNA M. DUNN	06-T9-20.15
5	JOSHUA R. BOYD & AMY M. BOYD (S)	06-T9-20.18	C	DAVID A. WILLIAMS & JANIE G. WILLIAMS	06-T9-20.14
6	JOSHUA R. BOYD & AMY M. BOYD (S)	06-T9-20.52	D	AMC CORP.	06-T9-29
7	JOSHUA R. & AMY M. BOYD (S)	06-T9-20.39	E	DAVID A. WILLIAMS & JANIE G. WILLIAMS	06-T9-20.13
8	JAMES E. DUNN & D.M. DUNN (S)	06-T9-20.16	F	WILLIAM C. SCHUETZ & SANDRA SCHUETZ	06-T9-20.6
9	JAMES E. DUNN & D.M. DUNN (S)	06-T9-20.8	G	WILLIAM C. SCHUETZ & SANDRA SCHUETZ	06-T9-20.5
10	DAVID A. WILLIAMS & JANIE G. WILLIAMS (S)	06-T9-20.11	H	CHRISTOPHER R. DUNN & TANAKA H. DUNN	06-T9-20.46
11	NICOLE SEIFERT (S)	06-T9-20.51	I	CONSTANCE L. KERCHER	06-T9-20.49
12	SARAH ANN PORTER (S)	06-T9-20.41	J	MICHAEL P. ORTH & BRENDA K. ORTH	06-T9-20.35
13	GEORGE L. DUNN & NANCY M. DUNN, (LIFE ESTATE), KATHERINE A. POSEY, CHRISTOPHER R. DUNN, RHONDA L. HAND & CONSTANCE L. KERCHER (REMAINDERMAN) (S)	06-T9-20.2	K	JAMES L. ABERCROMBIE & DIANA L. ABERCROMBIE	06-T9-20.30
			L	DAVID L. KOVALSKI III & JOCELYN N. KOVALSKI	06-T9-20.48
			M	MICHAEL R. KLEIN	06-T9-20.9
			N	MICHAEL J. WHEELER	06-T9-20.34
14	THOMAS E. POSEY & K.A. POSEY (S)	06-T9-20.36	O	MICHAEL J. WHEELER	06-T9-20.28
15	THOMAS POSEY & KATHERINE A. POSEY (S)	06-T9-20.42	P	RICKY J. LANTZ & D.A. LANTZ	06-T9-20.25
16	THOMAS POSEY & KATHERINE A. POSEY (S)	06-T9-20.43	Q	BRENT A. HILL & PATTY J. HILL	06-T9-20.24
17	THOMAS POSEY & KATHERINE A. POSEY (S)	06-T9-20.27	R	DONALD W. PEGG & J.L. PEGG	06-T9-20.1
18	GEORGE L. DUNN & NANCY M. DUNN (LIFE ESTATE), KATHERINE A. POSEY, CHRISTOPHER R. DUNN, RHONDA L. HAND, CONSTANCE L. KERCHER (REMAINDERMEN) (S)	06-T9-20.50	S	THOMAS F. MCKENZIE & STEPHANIE N. MCKENZIE	06-T14-12.1
			T	GARY FLANEGIN	06-T9-20.20
			U	MICHAEL W. NASH & C.J. NASH	06-T9-20.19
			V	LISA A. OLIVER	06-T9-20.21
19	JAMES L. ABERCROMBIE & DIANA L. ABERCROMBIE (S)	06-T9-20.29	W	BRENT A. HILL & PATTY J. HILL	06-T9-20.32
20	DONNA L. HOLMAN-ALOE (S)	06-T9-20.23	X	BRENT A. HILL & PATTY J. HILL	06-T9-20.47
21	MICHAEL J. WHEELER (S)	06-T9-20.31	Y	MICHAEL J. WHEELER	06-T9-20.37
22	JODY H. USENICK (S)	06-T9-20.12	Z	MICHAEL J. WHEELER	06-T9-20.26
23	THOMAS C. GANTZER, JR. & VICTORIA S. GANTZER (LIFE OCCUPANCY), THOMAS CHRISTIAN GANTZER (REMAINDERMAN) (S)	06-T9-20.33	AA	JOHN C. CLARK & REBECCA L. SOSKA	06-T14-25
			BB	JOHN J. MISCOVICH	06-T14-23.2
			CC	JOHN J. MISCOVICH	06-T14-24.2
24	THOMAS C. GANTZER, JR. & VICTORIA S. GANTZER (LIFE OCCUPANCY), THOMAS CHRISTIAN GANTZER (REMAINDERMAN) (S)	06-T9-20.7	DD	WAYNE SMITH & GRACE SMITH	06-T14-24.3
			EE	GREGORY EDWARD SUPLER, JR.	06-T14-26
			FF	JANIS C. NASH	06-T14-23.3
25	THOMAS C. GANTZER, JR. & VICTORIA S. GANTZER (LIFE OCCUPANCY), THOMAS CHRISTIAN GANTZER (REMAINDERMAN) (S)	06-T9-20.4	GG	PAUL ANDERSON & VERNA ANDERSON	06-T14-23.6
			HH	MICHAEL P. EBBERT	06-T14-23.7
			II	ERIC PATTISON & CAROLYN PATTISON	06-T14-23.8
26	THOMAS C. GANTZER, JR. & VICTORIA S. GANTZER (LIFE OCCUPANCY), THOMAS CHRISTIAN GANTZER (REMAINDERMAN) (S)	06-T9-20.40	JJ	JOHN W. ORUM JR.	06-T14-24.4
			KK	CLEATUS STILL	06-T14-24.5
			LL	ROBERT T. HEITZ & ELIZABETH R. HEITZ	06-T14-13
27	GREGG EDWARD BAMBARGER (S)	06-T9-20.10	MM	ELIZABETH ROSE HEITZ	06-T14-13.1
28	JEFFREY D. MCKENZIE & F.M. MCKENZIE (S)	06-T14-12	NN	JOSHUA R. BOYD & AMY M. BOYD	06-T9-20.22
29	AMC CORP. (S)	06-T14-24.1	OO	EVELYN BETH STEWART DEGENNARO	06-T9-20.3
30	GREGORY S. EDWARDS LEASING INC. (S)	06-T14-24			
31	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY (S)	WHEELING RUN ROAD			

REVISIONS:	COMPANY:		
	OPERATOR'S	CHARLES FRYE OHI	API #:
	WELL #:	610H	47-069-00280
	DISTRICT:	COUNTY:	DATE: 05-15-2019
	TRIADDELPHIA	OHIO	DRAWN BY: N. MANO
		STATE:	SCALE: N/A
		WV	DRAWING NO:
			WELL LOCATION PLAT 2

WW-6A1
(5/13)

Operator's Well No. CHARLES FRYE OHI 610H

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
----------------------	-----------------------	-----------------------	---------	-----------

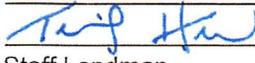
SEE EXHIBIT.

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: SWN Production Company, LLC.
 By: 
 Its: Staff Landman

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EXHIBIT "A"

Attached to and made a part of the State of West Virginia Oil and Gas Permit Form, WW-6A1, by SWN Production Company, L.L.C., Operator
Charles Frye OHI 610H
Ohio County, West Virginia

#	TMP	LESSOR	LESSEE	ROYALTY	BK/PG
1)	06-T14-01	Dorothy V. Frye, A widow	Great Lakes Energy Partners, LLC Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	775/335 808/375 883/204
2)	06-T9-20	George L. Dunn and Nancy M. Dunn, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	795/556 885/524
3)	06-T9-20.44	Charles Porter and Sarah Ann Porter	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	807/294 883/291
4)	6-T9-20.45	Phillip J. Marquart and Kersten Lynn Marquart, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	808/41 883/291
5)	6-T9-20.18	Donna M. Dunn, AKA Donna K. Dunn, a married woman dealing in her sole and separate property, and Patricia R. Kirchner, a single woman	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	810/50 883/156
6)	6-T9-20.52	Patricia R. Kirchner, a single woman by Tracy E. Richmond as POA Donna M. Dunn, a married woman dealing in her sole and separate property	SWN Production Company, L.L.C. SWN Production Company, L.L.C.	14.00% 14.00%	948/235 929/366
7)	6-T9-20.39	Patricia R. Kirchner, single	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	810/575 883/180
8)	6-T9-20.16	James E. Dunn and Donna M. Dunn	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	810/664 883/156
9)	6-T9-20.8	James E. Dunn and Donna M. Dunn	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	810/664 883/156
10)	06-T9-20.11	David A. Williams and Janie G. Williams, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	16.00%	877/525 895/477

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Ohio County, West Virginia

11)	6-T9-20.51	Herbert Lynn Richardson and Clara Eileen Richardson, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	814/487 883/243
12)	6-T9-20.41	Sarah Ann Porter and Charles Porter, her husband	SWN Production Company, L.L.C.	16.00%	919/665
13)	6-T9-20.2	Nancy Dunn, a married woman dealing in her sole and separate property	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	815/243 883/228
14)	6-T9-20.36	Thomas Posey and K.A. Posey	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	818/27 884/241
15)	6-T9-20.42	Thomas Posey and Katherine A. Posey, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	818/31 884/241
16)	6-T9-20.43	Thomas Posey and Katherine A. Posey, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	818/31 884/241
17)	6-T9-20.27	Thomas Posey & Katherine A. Posey, husband and wife	SWN Production Company, L.L.C.	18.00%	939/325
18)	6-T9-20.50	George L. Dunn and Nancy M. Dunn, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	14.00%	795/556 885/524
19)	6-T9-20.29	Delbert R. Baker and Dolores E. Baker, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	17.00%	878/525 895/477
20)	6-T9-20.23	Stanley C. Baker and Suzanne Baker, husband and wife	SWN Production Company, L.L.C.	17.00%	35/669
21)	6-T9-20.31	Delbert R. Baker and Dolores E. Baker, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	17.00%	878/525 895/477
22)	6-T9-20.12	Jody H. Usenick f/k/a Jody H. Orth, a single woman	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	16.00%	880/148 895/462
23)	6-T9-20.33	Thomas C. Gantzer, Jr. and Victoria S. Gantzer, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	815/528 884/241

* OK
on previous
permit →

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Charles Frye OHI 610H
Ohio County, West Virginia

24)	6-T9-20.7	Thomas C. Gantzer, Jr. and Victoria S. Gantzer, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	815/540 884/241
25)	6-T9-20.4	Thomas C. Gantzer, Jr. and Victoria S. Gantzer, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	815/536 884/241
26)	6-T9-20.40	Thomas C. Gantzer, Jr. and Victoria S. Gantzer, husband and wife	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	815/532 885/284
27)	6-T9-20.10	Gregg Edward Bambarger, a single man	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	872/289 884/349
28)	6-T14-12	Jeffrey D. McKenzie and Francine M. McKenzie, husband and wife	NPAR, LLC Chevron U.S.A. Inc. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	807/570 827/269 867/713 885/308
29)	6-T14-24.1	AMC, Inc.	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	846/113 885/404
30)	6-T14-24	Gregory S. Edwards Leasing, Inc.	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	863/264 884/385
31)	Wheeling Run Road	West Virginia, Department of Transportation, Division of Highways	Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	18.00%	857/213 884/289
32)	6-T14-23.4	John W. Orum, Jr. and Agnes A. Orum, his wife	Great Lakes Energy Partners, L.L.C. Chesapeake Appalachia, L.L.C. SWN Production Company, LLC	12.50%	776/262 808/549 883/204
33)	6-T14-23.9	Douglas Brian Orum, a single man	SWN Production Company, L.L.C.	18.00%	924/566
34)	6-T14-23.5	Douglas Brian Orum, a single man	SWN Production Company, L.L.C.	18.00%	924/566

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Charles Frye OHI 610H
Ohio County, West Virginia

35)	6-T14-23.1	John W. Orum, Jr. and Agnes A. Orum, his wife	Great Lakes Energy Partners, L.L.C.	776/262
			Chesapeake Appalachia, L.L.C.	808/549
			SWN Production Company, LLC	12.50% 883/204
36)	6-T14-23	Bertie Helen Orum, widow	Great Lakes Energy Partners, L.L.C.	776/651
			Chesapeake Appalachia, L.L.C.	808/549
			SWN Production Company, LLC	12.50% 883/192
37)	6-T14-23.10	Bertie Helen Orum, widow	Great Lakes Energy Partners, L.L.C.	776/651
			Chesapeake Appalachia, L.L.C.	808/549
			SWN Production Company, LLC	12.50% 883/192

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06/14/2019

SWN Production Company, LLC
1300 Fort Pierpont Dr, Ste 201
Morgantown, WV 26508
Tel: 304 884 1610
Fax: 304 471 2497
www.swn.com

May 3, 2019

Ms. Laura Adkins
WV DEP Office of Oil & Gas
601 57th St., SE
Charleston, WV 25304

RE: SWN's proposed well: Charles Frye OHI 610H in Ohio County, West Virginia, Drilling under Marlow's Run Road, Jenkins Lane, and Orrs Run.

Dear Ms. Adkins:

SWN Production Company, LLC ("SWN") is applying for a drilling permit for the above referenced well. The State of West Virginia has raised some concern as to SWN's right to drill under Marlow's Run Road, Jenkins Lane, and Orrs Run. Please be advised that SWN has leased all mineral owners under said route as it relates to the above-referenced well and unit.

Thank you.

Sincerely,

Travis E. Hill, CPL
Staff Landman
SWN Production Company, LLC

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The Right People doing the Right Things,
wisely investing the cash flow from our
underlying Assets, will create Value+®

May 16, 2019

Ms. Laura Adkins
Office of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Proposed Modificaiton: Charles Frye OHI 610H

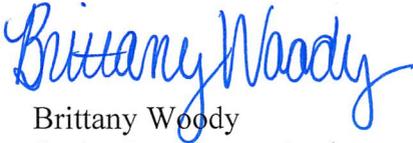
Dear Ms. Adkins

Enclosed please find the updated 6B, casing program, WBD, mylar plat, 6A1 and road letter for the above captioned well. We are extending the lateral. This well is situated on the Frye's property, in Triadelphia District, Ohio County, West Virginia.

If you have any questions or desire additional information, please me at 304-884-1613

Thank you.

Sincerely,



Brittany Woody
Senior Regulatory Analyst
Southwestern Energy Production Company, LLC

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