

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

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Monday, March 1, 2021 PERMIT MODIFICATION APPROVAL Horizontal 6A / New Drill

TUG HILL OPERATING, LLC 380 SOUTHPOINTE BOULEVARD, PLAZA II SUITE 200 CANONSBURG, PA 15317

Re: Permit Modification Approval for KNOB CREEK N-3HM

47-051-02280-00-00

Lateral Extension Approved

TUG HILL OPERATING, 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.

James A. Martin

Chief

Operator's Well Number: KNOB CREEK N-3HM

Farm Name: DAVID LEE FRANKLIN

U.S. WELL NUMBER: 47-051-02280-00-00

Horizontal 6A New Drill Date Modification Issued: 03/01/2021

Promoting a healthy environment.



February 12, 2021

RECEIVED Office of Oil and Gas

FEB 1 9 2021

WV Department of Environmental Protection

WADE STANSBERRY WV DEP OFFICE OF OIL & GAS 601 57[™] STREET SE CHARLESTON, WV 25304-2345

VIA USPS

RE: Knob Creek N-3HM API # 47-051-02280 (H6A Permit Modification)

Meade District, Marshall County, WV

Dear Wade:

Tug Hill Operating, LLC is submitting a permit modification for its permitted well, Knob Creek N-3HM to add 11,673.4' to the lateral length. Therefore, enclosed please find the following:

- Modified WW-6B with changes highlighted in yellow
- Updated well plat
- Updated WW-6A1 information
- Updated Site Safety Plan (The only information that has changed is the contact information for the Inspector at the contact list at the end of the Plan).

If you have any questions or need any additional information, please do not hesitate to call me on (304) 376-0111. Thank you for attention to this matter, it is greatly appreciated.

Sincerely,

AMY MORRIS

PERMIT SPECIALIST-APPALACHIA REGION

TUG HILL OPERATING, LLC

Enclosures

WW-6B (04/15)

Modification

API NO. 47-051	- 02280	
OPERATOR WE	LL NO.	Knob Creek N-3HM
Well Pad Name	. Knob (Creek

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

1) Well Opera	tor: Tug Hi	II Operatir	ig, LLC	494510851	Marshall	Meade	Glen Easton 7.5'
	-			Operator ID	County	District	Quadrangle
2) Operator's	Well Numbe	r: Knob C	eek N-3H	Mell P	ad Name: Kno	b Creek	
3) Farm Name	/Surface Ow	ner: David	d Lee Fran	nklin Public Ro	oad Access: St	. Joseph R	oad - CR 21
4) Elevation, c	urrent groun	d: 737'	(I	Elevation, propose	d post-construc	tion: 737'	
5) Well Type	(a) Gas Other	X	Oil _	Un	derground Stor	age	
	(b)If Gas	Shallow Horizonta	x x	Deep	-	gu	129/2020
6) Existing Pa	d: Yes or No	Yes				0 10	1
				icipated Thickness ed approximate pressure of 3800 psi		Pressure(s):	
8) Proposed To	otal Vertical	Depth: 6,	352'				
9) Formation a			_	ga			
10) Proposed			19,593'				
11) Proposed I			12,453.9	95'			
			1	70'; 380'			
12) Approxim				-		and the second	is dillian academakurisal mulustinu of societistu.
13) Method to				Use shallow offset wolls to determine do	opest freshwater, or determine using	ng pro-uni tesis, tesing win	le drilling or petrophysical evaluation of resistivity.
14) Approxim				1.50.7.683		- Tab. 7a. 1	
15) Approxim	ate Coal Sea	m Depths:	Sewickle	y Coal - 292' and	Pittsburgh Co	oal - 374'	
16) Approxim	ate Depth to	Possible V	oid (coal n	nine, karst, other):	None		
17) Does Prop directly overly					N	lo X	
(a) If Yes, pr	ovide Mine l	Info: Nan	ne:			Office	ECEIVED of Oil and Gas
(a) 11 1 cs, pr	Ovide Wille	Dep				FEB	1 9 2021
		Sea				WV D	Department of
		Owi				Environs	nental Protection

WW-6B	
(04/15)	

API NO. 47-_051 - 02280

OPERATOR WELL NO. Knob Creek N-3HM

Well Pad Name: Knob Creek

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	30"	NEW	BW	BW	120'	120'	259ft^3(CTS)
Fresh Water	13 3/8"	NEW	J55	54.5#	480'	480'	683ft^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	480'	480'	683ft^3(CTS)
Intermediate	9 5/8"	NEW	J55	36#	2,301'	2,301'	744ft^3(CTS)
Production	5 1/2"	NEW	P110	20#	19,593'	19,593'	4,991'ft^3(CTS)
Tubing	2 3/8"	NEW	N80	4.7#	6,177'		
Liners			-				^
Liners						gre 10	(2) (nord

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	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	13 3/8"	17.5"	.33	2,740	2,192	SEE #24	1.2
Coal	13 3/8"	17.5"	.33	2,740	2,192	SEE #24	1.2
Intermediate	9 5/8"	12 1/4"	.352	3,520	2,816	SEE #24	1.19
Production	5 1/2"	8 7/8"_8 3/4"	.361	12,640	10,112	SEE #24	1.17/1.19
Tubing	2 3/8"		.19	11,200	8,960		
Liners							

PACKERS

RECEIVED Office of Oil and Gas

Kind:	N/A	FEB 1 9 2021
Sizes:	N/A	WV Department of Environmental Protection
Depths Set:	N/A	

WW-6B
(10/14)

API NO. 47- 051 - 02280

OPERATOR WELL NO. Knob Creek N-3HM

Well Pad Name: Knob Creek

Ju/29/2000

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

Drill through the Marcellus tagging less than 100' from the top of the Onondaga to get depths and log data. Plug back to proposed kick off point. Drill the horizontal section to planned and proposed TD. Run casing and cement to surface. Run Bond Log from app. 60 deg to surface. Make clean out run and stimulate.

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

Well to completed with approximately 32,500,000 lb. proppant and 585,000 barrels of water. Max rate = 80bpm; max psi = 9,000#.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.93 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 5.55 acres

23) Describe centralizer placement for each casing string:

Will run 3 centralizers on surface casing at equal distance. Intermediate will have 1 centralizer every other joint. Production casing will have one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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

Sfc - Premium NE-1 + 2% CaCl; Int1 - Premium NE-1 + 1.5% CaCL + Flake; Int2 - Lead: Premium NE-1 + 5% BA-90 + .85% R-3 + 3% KCl + .75 gals/100sk FP-13L + 1% MPA-170 Tail: Premium NE-1 + .1% R-3 + 5% KCl + 1% CD-32 + .4% FL-52 + .2% ASA-301 + .6% Sodium Metasilicate; Kick Plug - Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L; Prod - Lead: 50:50 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .75 gal/100sk FP-13L Tail: 25:75 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .375 gal/100sk FP-13L

25) Proposed borehole conditioning procedures:

Will circulate a minimum of 3 hours at TD, short trip to curve, circulate bottoms up, check for flow, POOH.

Office of Oil and Gas

FEB 1 9 2021

^{*}Note: Attach additional sheets as needed.



30" Csg @ 120' MD / 120' TVD 13 3/8" Csg @ 480' MD / 480' TVD 9 5/8" Csg @ 2,301' MD /

WELL NAME: Knob Creek N-3HM STATE: wv COUNTY: Marshall DISTRICT: Meade DF Elev: 737' 737 19,593 TH Latitude: 39.77003136 TH Longitude: -80.70553067 BH Latitude: 39.80365639 BH Longitude: -80.72969225

RECEIVED Office of Oil and Gas

FEB 1 9 2021

WV Department of Environmental Protection

FORMATION TO)PS
Formation	Depth TVE
Deepest Fresh Water	380
Sewickley Coal	292
Pittsburgh Coal	374
Big Lime	1695
Weir	1996
Berea	2181
Gordon	2443
Rhinestreet	5558
Geneseo/Burkett	6070
Tully	6099
Hamilton	6133
Marcellus	6201
Landing Depth	6236
Onondaga	6252
Pilot Hole Depth	6352

CASING SUMMARY									
Туре	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight [lb/ft]	Grade	Top of Cemen		
Conductor	36	30	120'	120'	BW	BW	Surface		
Surface	17.5	13 3/8	480'	480'	54.5	J55	Surface		
Intermediate 1	12 1/4	9 5/8	2,301'	2,300'	36	J55	Surface		
Production	87/8×83/4	5 1/2	19,593'	6,010	20	CYHP110	Surface		

CEMENT SUMMARY				DRILLING DETAILS			
	Sacks	Class	Density	Fluid Type	Centralizer Notes		
Conductor	338	A	15.6	Air	None		
Surface	661	A	15.6	Air	3 Centralizers at equal distance		
Intermediate 1	783	A	15	Air	1 Centralizer every other jt		
Production	4,591	A	14.5	Air / SOBM	1 every other joint in lateral; 1 per joint in curve; 1 avery other jt is sfc		

5,676' ft MD

Pilot Hole PH TD @ 6,352' TVD

Landing Point @ 6,627' MD / 6,236' TVD

PH TVD = 100' below Onondaga Top

2,300' TVD

Lateral TD @

19,593' ft MD

6,010 ft TVD



Tug Hill Operating, LLC Casing and Cement Program

Knob Creek N-3HM

Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	13 3/8"	J55	17 1/2"	480'	CTS
Intermediate	9 5/8"	J55	12 1/4"	2,301'	CTS
Production	5 1/2"	CYHP110	8 7/8 x 8 3/4	19,593'	CTS

Cement

Conductor: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water - Conductor Cement mixed at 15.6 ppg, Y=1.2

Surface: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2

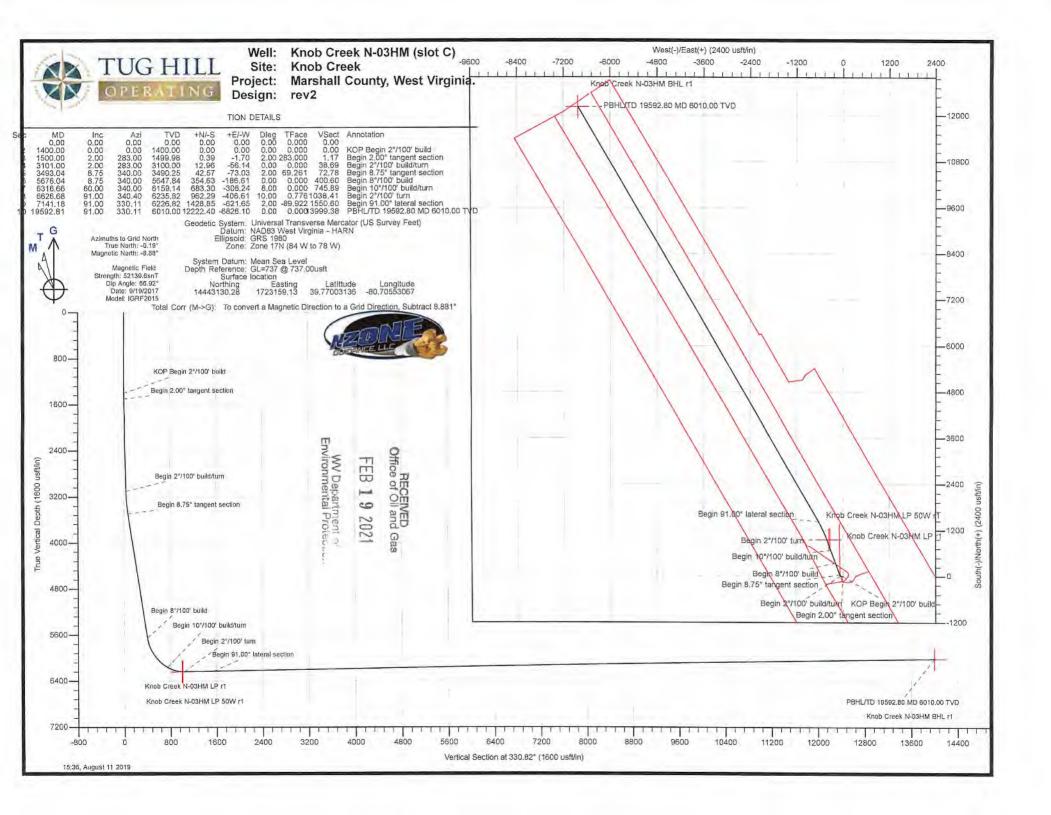
Intermediate: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.19

Kick Off Plug: Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L - KOP Plug

 $50:50 \ Poz: Premium \ NE-1 + .1\% \ bwoc \ ASA-301 + 60lb/sk \ ASCA-1 + .35\% \ bwoc \ BA-10A + .25\% \ bwoc \ MPA-170,$

Production: 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L - Production Cement mixed at 15.2ppg, Y = 1.19







Database: Company: DB_Jul2216dt_v14 lt

Project:

Tug Hill Operating LLC Marshall County, West Virginia.

Site:

Knob Creek

Well:

Knob Creek N-03HM (slot C)

Wellbore: Design:

Original Hole rev2

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Knob Creek N-03HM (slot C)

GL=737 @ 737.00usft GL=737 @ 737.00usft

Grid

Minimum Curvature

Project Marshall County, West Virginia.

Map System: Geo Datum: Map Zone:

Universal Transverse Mercator (US Survey Feet)

NAD83 West Virginia - HARN

Zone 17N (84 W to 78 W)

System Datum:

Mean Sea Level

Site Knob Creek

Site Position: From:

Well Position

Wellbore

Magnetics

Lat/Long

Original Hole

Model Name

IGRF2015

+N/-S

+E/-W

Northing: Easting: Slot Radius: 14,443,053.74 usft 1,723,120,29 usft

Latitude: Longitude:

Grid Convergence:

39.76982148 -80.70566975

0.188

Well

0.00 usft Knob Creek N-03HM (slot C)

0.00 usft

Northing:

Sample Date

Phase:

9/19/2017

14,443,130.29 usft Easting: 1,723,159.12 usft

Declination

Latitude: Longitude:

Ground Level:

66.922

39.77003136 -80.70553067

737.00 usft

Position Uncertainty

Position Uncertainty:

0.00 usft 0.00 usft

Wellhead Elevation:

-8.693

13-3/16 "

Dip Angle

Field Strength (nT) 52,139,60041335

Design rev2

Audit Notes:

Version:

PLAN

Tie On Depth:

0.00

Depth From (TVD) +N/-S +E/-W Direction Vertical Section: (usft) (usft) (°) (usft) 330.82 0.00 0.00 0.00

Plan Survey Tool Program

8/11/2019

Depth From (usft)

Depth To (usft)

Survey (Wellbore)

Tool Name

Remarks

0.00

19,592.81 rev2 (Original Hole)

MWD

MWD - Standard

RECEIVED
Office of Oil and Gas

FEB 1 9 2021



Database: Company: DB_Jul2216dt_v14 lt Tug Hill Operating LLC

Project:

Marshall County, West Virginia.

Site:

Knob Creek

Well:

Knob Creek N-03HM (slot C)

Wellbore: Design: Original Hole rev2

Local Co-ordinate Reference:

TVD Reference:

North Reference: Survey Calculation Method: Well Knob Creek N-03HM (slot C)

GL=737 @ 737.00usft GL=737 @ 737.00usft

Grid

Minimum Curvature

Measured Depth (usft)	Inclination (°)	Azimuth	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,500.00	2.00	283.00	1,499.98	0.39	-1.70	2.00	2.00	0.00	283.000	
3,101.00	2.00	283.00	3,100.00	12.96	-56.14	0.00	0.00	0.00	0.000	
3,493.04	8.75	340.00	3,490.25	42.57	-73.03	2.00	1.72	14.54	69.261	
5,676.04	8.75	340.00	5,647.84	354.63	-186.61	0.00	0.00	0.00	0.000	
6,316.66	60.00	340.00	6,159.14	683,30	-306.24	8.00	8.00	0.00	0.000	
6,626.68	91.00	340.40	6,235.82	962.29	-406.61	10.00	10.00	0.13	0.776	
7,141.18	91.00	330.11	6,226.82	1,428.85	-621.65	2.00	0.00	-2.00	-89.922	
19,592.81	91.00	330.11	6,010.00	12,222,40	-6,826.10	0.00	0.00	0.00	0.000	Knob Creek N-03HI

RECEIVED Office of Oil and Gas

FEB 1 9 2021



FEB 1 9 2021

Database: Company: Project:

DB_Jul2216dt_v14 lt Tug Hill Operating LLC

Marshall County, West Virginia.

Site:

Knob Creek

Well: Knob Creek N-03HM (slot C)

rev2

Wellbore: Design:

TVD Reference: MD Reference: North Reference:

Original Hole

Local Co-ordinate Reference:

Survey Calculation Method:

W Department of Well Knob Creek N. WSAM (\$60) Protection

GL=737 @ 737.00usft GL=737 @ 737.00usft

Grid Minimum Curvature

Planned Survey	4								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
100.00	0.00	0.00	100.00	0.00	0.00	14,443,130.29	1,723,159.12	39,77003136	-80.705530
200.00	0.00	0.00	200.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
300.00	0.00	0.00	300.00	0.00	0.00	14,443,130,29	1,723,159.12	39.77003136	-80.705530
400.00	0.00	0.00	400.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
500.00	0.00	0.00	500.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80,705530
600.00	0.00	0.00	600.00	0.00	0.00	14,443,130.29	1,723,159,12	39.77003136	-80.705530
700.00	0.00	0.00	700.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
800.00	0.00	0.00	800.00	0.00	0.00	14,443,130.29	1,723,159,12	39,77003136	-80.705530
900.00	0.00	0.00	900.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
1,000.00	0.00	0.00	1,000,00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80.705530
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,443,130.29	1,723,159,12	39,77003136	-80.705530
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,443,130.29	1,723,159.12	39.77003136	-80,705530
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,443,130.29	1,723,159.12	39,77003136	-80,705530
	jin 2°/100' bui								
1,500.00	2.00	283.00	1,499.98	0,39	-1.70	14,443,130.68	1,723,157.42	39,77003246	-80.705536
Begin 2.	00° tangent se	ection							2004022
1,600.00	2.00	283.00	1,599.92	1.18	-5.10	14,443,131.47	1,723,154.02	39.77003464	-80.705548
1,700.00	2.00	283.00	1,699.86	1.96	-8.50	14,443,132.25	1,723,150,62	39.77003683	-80,705560
1,800.00	2.00	283.00	1,799.80	2.75	-11.90	14,443,133,04	1,723,147.22	39.77003902	-80.705573
1,900.00	2.00	283.00	1,899.74	3.53	-15,30	14,443,133.82	1,723,143.82	39.77004120	-80.70558
2,000.00	2.00	283.00	1,999.68	4.32	-18.70	14,443,134.61	1,723,140.42	39.77004339	-80.70559
2,100.00	2.00	283.00	2,099.61	5.10	-22.10	14,443,135.39	1,723,137.02	39.77004558	-80,70560
2,200.00	2.00	283.00	2,199.55	5.89	-25.50	14,443,136.18	1,723,133.62	39.77004776	-80.70562
2,300.00	2.00	283.00	2,299.49	6.67	-28.90	14,443,136.96	1,723,130.22	39.77004995	-80.70563
2,400.00	2.00	283.00	2,399.43	7.46	-32,30	14,443,137.75	1,723,126.82	39,77005214	-80.70564
2,500.00	2.00	283.00	2,499.37	8.24	-35.71	14,443,138.53	1,723,123,42	39.77005432	-80,70565
2,600.00	2.00	283.00	2,599.31	9.03	-39.11	14,443,139,32	1,723,120.02	39.77005651	-80.705669
2,700.00	2.00	283.00	2,699.25	9.81	-42.51	14,443,140.10	1,723,116.62	39.77005870	-80.70568
2,800.00	2.00	283.00	2,799.19	10.60	-45.91	14,443,140.89	1,723,113.22	39.77006088	-80.70569
2,900.00	2.00	283.00	2,899.13	11.38	-49.31	14,443,141.67	1,723,109,82	39.77006307	-80.70570
3,000.00	2.00	283.00	2,999.07	12.17	-52.71	14,443,142.46	1,723,106.42	39.77006526	-80.70571
3,100.00	2.00	283.00	3,099.01	12,95	-56.11	14,443,143.24	1,723,103.02	39.77006744	-80.70573
3,101.00	2.00	283.00	3,100.00	12.96	-56.14	14,443,143.25	1,723,102,98	39.77006746	-80.70573
Begin 2°	/100' build/tur	n							
3,200.00	3.27	317.45	3,198.90	15.43	-59.74	14,443,145.72	1,723,099.39	39.77007429	-80.70574
3,300.00	5.05	330.55	3,298.64	21.37	-63.83	14,443,151.66	1,723,095.29	39.77009062	-80.70575
3,400.00	6.94	336.70	3,398.09	30.75	-68.39	14,443,161.04	1,723,090.74	39,77011643	-80.70577
3,493.04	8.75	340,00	3,490.25	42.57	-73.03	14,443,172.86	1,723,086.09	39.77014892	-80.70579
Begin 8.	75° tangent se	ection							
3,500.00	8.75	340.00	3,497.13	43.56	-73.40	14,443,173.85	1,723,085.73	39.77015166	-80.70579
3,600.00	8.75	340.00	3,595.97	57,86	-78.60	14,443,188.15	1,723,080.53	39.77019096	-80.70580
3,700.00	8.75	340.00	3,694.80	72,15	-83.80	14,443,202.44	1,723,075.32	39.77023027	-80.70582
3,800.00	8.75	340,00	3,793.64	86.45	-89.00	14,443,216.74	1,723,070.12	39.77026957	-80.70584
3,900.00	8.75	340.00	3,892.48	100.74	-94.21	14,443,231.03	1,723,064.92	39.77030888	-80.70586
4,000.00	8.75	340.00	3,991.31	115.04	-99.41	14,443,245.33	1,723,059.71	39.77034818	-80.70588
4,100.00	8.75	340.00	4,090.15	129.33	-104,61	14,443,259.62	1,723,054.51	39.77038749	-80.70590
4,200.00	8.75	340.00	4,188.98	143.63	-109.82	14,443,273.92	1,723,049.31	39.77042679	-80,70591
4,300.00	8.75	340.00	4,287.82	157.92	-115.02	14,443,288.21	1,723,044.10	39.77046610	-80.70593
4,400.00	8.75	340.00	4,386.66	172,22	-120.22	14,443,302.50	1,723,038.90	39,77050540	-80.70595
4,500.00	8.75	340.00	4,485.49	186.51	-125.42	14,443,316.80	1,723,033.70	39.77054471	-80,70597
4,600.00	8.75	340.00	4,584.33	200.81	-130.63	14,443,331.09	1,723,028.50	39.77058401	-80,70599
4,700.00	8.75	340.00	4,683.17	215.10	-135.83	14,443,345.39	1,723,023.29	39.77062331	-80.70601



DB_Jul2216dt_v14 lt Tug Hill Operating LLC

Knob Creek

Marshall County, West Virginia.

Planning Report - Geographic

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Knob Creek N-03HM (slot C)

GL=737 @ 737.00usft GL=737 @ 737.00usft Grid

Minimum Curvature

Office of Oil and Gas FEB 1 9 2021

Well: Knob Creek N-03HM (slot C)
Wellbore: Original Hole
Design: rev2

Database:

Company:

Project:

Site:

Aeasured			Vertical			Мар	Мар		
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
4,800.00	8.75	340,00	4,782.00	229.40	-141.03	14,443,359.68	1,723,018.09	39.77066262	-80.706029
4,900.00	8.75	340.00	4,880.84	243.69	-146.24	14,443,373.98	1,723,012.89	39.77070192	-80.706048
5,000.00	8.75	340.00	4,979.67	257.99	-151.44	14,443,388.27	1,723,007.68	39.77074123	-80.706066
5,100.00	8.75	340,00	5,078,51	272,28	-156.64	14,443,402.57	1,723,002.48	39,77078053	-80.706084
5,200.00	8.75	340.00	5,177.35	286.58	-161.85	14,443,416.86	1,722,997.28	39.77081984	-80.706103
5,300.00	8.75	340.00	5,276.18	300.87	-167.05	14,443,431.16	1,722,992.08	39.77085914	-80.70612
5,400.00	8.75	340.00	5,375.02	315.17	-172.25	14,443,445.45	1,722,986.87	39.77089845	-80.706140
5,500.00	8.75	340.00	5,473.85	329.46	-177.45	14,443,459.75	1,722,981.67	39.77093775	-80.70615
5,600.00	8.75	340.00	5,572.69	343.76	-182.66	14,443,474.04	1,722,976.47	39,77097706	-80.706176
5,676.04	8.75	340.00	5,647.85	354.63	-186.61	14,443,484.91	1,722,972.51	39,77100694	-80.70619
The Control of the Co		0 10.00	9,917.99	901.00	100.01	14,440,404.01	1,722,072,01	00.17 (0000)	00.7.0075
The same of the sa	/100' build	340,00	5 674 45	358,42	100 00	14,443,488.71	1,722,971,13	39.77101738	-80.70619
5,700.00	10.67	340.00	5,671.46	382.20	-188.00				-80.706226
5,800.00	18.67		5,768.12		-196.65	14,443,512.48	1,722,962.48	39.77108275	
5,900.00	26.67	340.00	5,860.33	418.38	-209.82	14,443,548.67	1,722,949.31	39.77118224	-80.706272
6,000.00	34.67	340.00	5,946.27	466.27	-227,25	14,443,596.56	1,722,931.88	39.77131392	-80.70633
6,100.00	42.67	340.00	6,024.29	524.94	-248.60	14,443,655.22	1,722,910.52	39.77147521	-80.706409
6,200.00	50.67	340.00	6,092.85	593.23	-273.46	14,443,723.52	1,722,885,67	39.77166300	-80.706496
6,300.00	58.67	340.00	6,150.64	669.83	-301.34	14,443,800.12	1,722,857.79	39.77187361	-80.70659
6,316.66	60.00	340.00	6,159.14	683.29	-306.24	14,443,813.58	1,722,852.88	39.77191063	-80,70661
Begin 10	°/100' build/tu	irn							
6,400.00	68.33	340.12	6,195.42	753.75	-331.79	14,443,884.04	1,722,827.33	39.77210434	-80.706702
6,500.00	78.33	340.25	6,224.07	843.76	-364.22	14,443,974.05	1,722,794.90	39,77235184	-80.706817
6,600.00	88.33	340.37	6,235.66	937.16	-397.65	14,444,067.45	1,722,761.48	39.77260863	-80.706934
6,626.68	91.00	340.40	6,235.82	962.29	-406.60	14,444,092.58	1,722,752.52	39.77267772	-80,706966
***************************************	/100' turn								
6,700.00	91.00	338.93	6,234.54	1,031.03	-432.08	14,444,161.31	1,722,727.05	39.77286673	-80.707056
6,800.00	91.00	336.93	6,232.79	1,123.68	-469,64	14,444,253.97	1,722,689.49	39.77312152	-80.707188
6,900.00	91.00	334.93	6,231.04	1,214.97	-510.41	14,444,345.26	1,722,648.71	39.77337259	-80.707333
7,000.00	91.00	332.93	6,229.29	1,304.78	-554.34	14,444,435.07	1,722,604.78	39.77361962	-80.707488
7,100.00	91.00	330.93	6,227.54	1,393.00	-601.38	14,444,523.29	1,722,557.74	39.77386233	-80.707654
The second second	91.00		6,226.82	1,428.84	-621.65	14,444,559.13	1,722,537.48	39.77396094	-80.707726
7,141.18		330,11	0,220.02	1,420.04	-021.00	14,444,555,15	1,722,007.40	33.77330004	-50170772
	.00° lateral se		0.222.22	1 140 00		11111111111111		*********	00 70700
7,200.00	91.00	330.11	6,225.80	1,479.83	-650.96	14,444,610.12	1,722,508.17	39.77410123	-80.707830
7,300.00	91.00	330.11	6,224.06	1,566.52	-700.78	14,444,696.80	1,722,458.34	39.77433973	-80.70800
7,400.00	91.00	330,11	6,222.32	1,653.20	-750.61	14,444,783.49	1,722,408,51	39.77457823	-80.708183
7,500.00	91.00	330.11	6,220.58	1,739.88	-800,44	14,444,870.17	1,722,358.68	39.77481674	-80.70835
7,600.00	91.00	330.11	6,218.83	1,826.57	-850.27	14,444,956.86	1,722,308.85	39.77505524	-80.70853
7,700.00	91,00	330.11	6,217.09	1,913.25	-900.10	14,445,043.54	1,722,259.03	39.77529374	-80.70871
7,800.00	91.00	330.11	6,215.35	1,999.94	-949.93	14,445,130.22	1,722,209.20	39.77553224	-80,70888
7,900.00	91.00	330.11	6,213.61	2,086.62	-999.75	14,445,216,91	1,722,159.37	39.77577074	-80.709064
8,000.00	91.00	330.11	6,211.87	2,173.30	-1,049,58	14,445,303.59	1,722,109.54	39.77600925	-80,70924
8,100.00	91.00	330.11	6,210.13	2,259.99	-1,099.41	14,445,390.27	1,722,059.71	39.77624775	-80.70941
8,200.00	91.00	330.11	6,208.39	2,346.67	-1,149.24	14,445,476.96	1,722,009,88	39.77648625	-80.709593
8,300.00	91.00	330,11	6,206.65	2,433.35	-1,199,07	14,445,563,64	1,721,960.06	39.77672475	-80.709769
8,400.00	91.00	330.11	6,204.90	2,520.04	-1,248.90	14,445,650.33	1,721,910.23	39.77696325	-80,709946
8,500.00	91.00	330.11	6,203.16	2,606.72	-1,298.73	14,445,737.01	1,721,860.40	39.77720175	-80.71012
8,600.00	91.00	330.11	6,201.42	2,693.41	-1,348.55	14,445,823.69	1,721,810.57	39.77744025	-80.71029
8,700.00	91.00	330.11	6,199.68	2,780.09	-1,398.38	14,445,910.38	1,721,760.74	39.77767875	-80.71047
8,800.00	91.00	330.11	6,197.94	2,866.77	-1,448.21	14,445,997.06	1,721,710.91	39.77791725	-80.71065
8,900.00	91.00	330.11	6,196.20	2,953.46	-1,498.04	14,446,083.75	1,721,661.08	39.77815575	-80,71082
9,000.00	91.00	330.11	6,194.46	3,040.14	-1,547.87	14,446,170.43	1,721,611.26	39.77839424	-80.711004
9,100.00	91,00	330.11	6,192.71	3,126.83	-1,597.70	14,446,257.11	1,721,561.43	39.77863274	-80,71118
9,200.00	91.00	330.11	6,192.71	3,213.51	-1,647.52	14,446,343.80	1,721,561.43	39.77887124	-80.71135
9,300.00	91.00	330.11	6,189,23	3,300.19	-1,697.35	14,446,430.48	1,721,461.77	39.77910974	-80.71153



Database:

Company:

Planning Report - Geographic

DB_Jul2216dt_v14 lt Tug Hill Operating LLC

Marshall County, West Virginia.

Project: Marshall Co Site: Knob Creek

Well: Knob Creek N-03HM (slot C)

Wellbore: Original Hole
Design: rev2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Knob Creek N-03HM (slot C)

GL=737 @ 737.00usft GL=737 @ 737.00usft Grid

Minimum Curvature

RECEIVED Office of Oil and Gas

Management			Vortical			Marie	Man		
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,400.00	91.00	330.11	6,187.49	3,386.88	-1,747.18	14,446,517.17	1,721,411.94	39,77934824	-80.71170
9,500.00	91.00	330.11	6,185.75	3,473.56	-1,797.01	14,446,603.85	1,721,362.11	39.77958673	-80.71188
9,600.00	91.00	330.11	6,184,01	3,560,25	-1,846.84	14,446,690.53	1,721,312.29	39.77982523	-80.7120
9,700.00	91.00	330.11	6,182.27	3,646.93	-1,896.67	14,446,777.22	1,721,262.46	39,78006373	-80.7122
9,800.00	91.00	330.11	6,180.53	3,733.61	-1,946.49	14,446,863.90	1,721,212.63	39,78030222	-80.7124
9,900.00	91.00	330,11	6,178.78	3,820.30	-1,996.32	14,446,950.58	1,721,162,80	39.78054072	-80.7125
10,000.00	91.00	330.11	6,177.04	3,906.98	-2,046.15	14,447,037.27	1,721,112.97	39.78077921	-80.7127
10,100.00	91.00	330.11	6,175.30	3,993.66	-2,095.98	14,447,123.95	1,721,063.14	39.78101771	-80.7129
10,200.00	91.00	330.11	6,173.56	4,080,35	-2,145.81	14,447,210.64	1,721,013.32	39.78125621	-80.7131
10,300.00	91.00	330.11	6,171.82	4,167.03	-2,195.64	14,447,297.32	1,720,963.49	39.78149470	-80.7132
10,400.00	91.00	330.11	6,170.08	4,253.72	-2,245.47	14,447,384.00	1,720,913.66	39.78173320	-80.7134
10,500.00	91.00	330.11	6,168.34	4,340.40	-2,295.29	14,447,470.69	1,720,863.83	39.78197169	-80.7136
10,600.00	91.00	330.11	6,166.59	4,427.08	-2,345.12	14,447,557.37	1,720,814.00	39.78221018	-80.7138
10,700.00	91.00	330.11	6,164.85	4,513.77	-2,394.95	14,447,644.06	1,720,764.17	39.78244868	-80.7140
10,800.00	91.00	330,11	6,163.11	4,600.45	-2,444,78	14,447,730.74	1,720,714,34	39.78268717	-80.7141
10,900,00	91.00	330.11	6,161.37	4,687.14	-2,494.61	14,447,817.42	1,720,664.52	39.78292566	-80.7143
11,000.00	91.00	330.11	6,159.63	4,773,82	-2,544.44	14,447,904.11	1,720,614.69	39.78316416	-80.7145
11,100.00	91.00	330.11	6,157.89	4,860.50	-2,594.26	14,447,990.79	1,720,564.86	39.78340265	-80.7147
11,200.00	91.00	330.11	6,156.15	4,947.19	-2,644.09	14,448,077.47	1,720,515.03	39.78364114	-80.7148
11,300.00	91.00	330,11	6,154.41	5,033.87	-2,693.92	14,448,164.16	1,720,465.20	39.78387964	-80.7150
11,400.00	91.00	330.11	6,152.66	5,120.56	-2,743.75	14,448,250.84	1,720,415.37	39.78411813	-80,7152
11,500.00	91.00	330.11	6,150.92	5,207.24	-2,793.58	14,448,337.53	1,720,365.55	39.78435662	-80.7154
11,600.00	91.00	330.11	6,149.18	5,293.92	-2,843.41	14,448,424.21	1,720,315,72	39.78459511	-80.7155
11,700.00	91.00	330.11	6,147.44	5,380.61	-2,893.24	14,448,510.89	1,720,265.89	39.78483360	-80.7157
11,800.00	91.00	330.11	6,145.70	5,467.29	-2,943.06	14,448,597.58	1,720,216.06	39.78507209	-80.7159
11,900.00	91.00	330.11	6,143.96	5,553.97	-2,992.89	14,448,684.26	1,720,166.23	39.78531058	-80.7161
12,000.00	91,00	330.11	6,142.22	5,640.66	-3,042.72	14,448,770.95	1,720,116.40	39,78554907	-80.7162
12,100.00	91.00	330.11	6,140.47	5,727.34	-3,092,55	14,448,857.63	1,720,066.57	39.78578756	-80.7164
12,200.00	91.00	330.11	6,138.73	5,814.03	-3,142,38	14,448,944.31	1,720,016.75	39.78602605	-80.7166
12,300.00	91.00	330,11	6,136.99	5,900.71	-3,192.21	14,449,031.00	1,719,966,92	39.78626454	-80.7168
12,400.00	91.00	330,11	6,135.25	5,987.39	-3,242,03	14,449,117.68	1,719,917.09	39.78650303	-80.7170
12,500,00	91,00	330,11	6,133.51	6,074.08	-3,291.86	14,449,204.37	1,719,867.26	39.78674152	-80.7171
12,600.00	91.00	330.11	6,131.77	6,160.76	-3,341.69	14,449,291.05	1,719,817.43	39,78698001	-80,7173
12,700.00	91.00	330,11	6,130.03	6,247.45	-3,391.52	14,449,377.73	1,719,767.60	39.78721850	-80,7175
12,800.00	91.00	330,11	6,128.29	6,334.13	-3,441.35	14,449,464.42	1,719,717.78	39.78745699	-80,7177
12,900.00	91.00	330,11	6,126.54	6,420.81	-3,491.18	14,449,551.10	1,719,667.95	39.78769547	-80.7178
13,000.00	91,00	330.11	6,124.80	6,507.50	-3,541.00	14,449,637.78	1,719,618.12	39.78793396	-80.7180
13,100.00	91.00	330.11	6,123.06	6,594.18	-3,590.83	14,449,724.47	1,719,568.29	39.78817245	-80.7182
13,200.00	91.00	330.11	6,121.32	6,680.87	-3,640.66	14,449,811.15	1,719,518.46	39.78841094	-80.7184
13,300.00	91,00	330,11	6,119.58	6,767.55	-3,690.49	14,449,897.84	1,719,468.63	39.78864942	-80.7185
13,400.00	91.00	330.11	6,117.84	6,854.23	-3,740.32	14,449,984.52	1,719,418.81	39.78888791	-80.7187
13,500.00	91.00	330.11	6,116.10	6,940.92	-3,790.15	14,450,071.20	1,719,368.98	39.78912640	-80.7189
13,600.00	91.00	330.11	6,114.35	7,027.60	-3,839.98	14,450,157,89	1,719,319.15	39.78936488	-80.7191
13,700.00	91.00	330.11	6,112.61	7,114.28	-3,889.80	14,450,244.57	1,719,269.32	39.78960337	-80.7192
13,800.00	91,00	330.11	6,110.87	7,200.97	-3,939,63	14,450,331.26	1,719,219.49	39,78984185	-80.7194
13,900.00	91,00	330.11	6,109.13	7,287.65	-3,989.46	14,450,417.94	1,719,169,66	39,79008034	-80.7196
14,000,00	91,00	330,11	6,107.39	7,374.34	-4,039.29	14,450,504,62	1,719,119,83	39.79031882	-80.7198
14,100.00	91.00	330.11	6,105.65	7,461.02	-4,089.12	14,450,591.31	1,719,070.01	39,79055731	-80,7200
14,200.00	91.00	330.11	6,103.91	7,547.70	-4,138.95	14,450,677.99	1,719,020.18	39,79079579	-80,7201
14,300.00	91.00	330.11	6,102,17	7,634.39	-4,188.77	14,450,764.68	1,718,970.35	39.79103428	-80,7203
14,400.00	91,00	330.11	6,100.42	7,721.07	-4,238.60	14,450,851.36	1,718,920.52	39.79127276	-80,7205
14,500.00	91.00	330.11	6,098.68	7,807.76	-4,288,43	14,450,938.04	1,718,870.69	39.79151124	-80.7207
14,600.00	91,00	330.11	6,096.94	7,894.44	-4,338.26	14,451,024.73	1,718,820.86	39.79174973	-80,7208
14,700.00	91.00 91.00	330.11 330.11	6,095.20	7,981.12 8,067.81	-4,388.09 -4,437.92	14,451,111.41 14,451,198.09	1,718,771.04 1,718,721.21	39.79198821 39.79222669	-80.7210 -80.7212



Database: DB_Jul2216dt_v14 lt
Company: Tug Hill Operating LLC
Project: Marshall County, West Virginia,

Site: Knob Creek

Well: Knob Creek N-03HM (slot C)

Wellbore: Original Hole
Design: rev2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Knob Creek N-03HM (slot C)

GL=737 @ 737.00usft GL=737 @ 737.00usft Grid

Minimum Curvature

Office of Oil and Ga

lanned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,900,00	91.00	330,11	6,091.72	8,154.49	-4,487.74	14,451,284.78	1,718,671,38	39.79246517	-80.721411
15,000.00	91.00	330.11	6,089.98	8,241.18	-4,537.57	14,451,371.46	1,718,621.55	39.79270366	-80,721587
15,100.00	91.00	330.11	6,088.23	8,327.86	-4,587.40	14,451,458.15	1,718,571.72	39.79294214	-80.721764
15,200.00	91.00	330.11	6,086.49	8,414.54	-4,637.23	14,451,544.83	1,718,521.89	39.79318062	-80.721940
15,300.00	91.00	330.11	6,084.75	8,501.23	-4,687.06	14,451,631.51	1,718,472.07	39,79341910	-80.722117
15,400.00	91.00	330.11	6,083.01	8,587.91	-4,736,89	14,451,718.20	1.718,422.24	39.79365758	-80.722293
15,500.00	91.00	330.11	6,081.27	8,674.59	-4,786.72	14,451,804.88	1,718,372.41	39.79389606	-80.722470
15,600.00	91.00	330.11	6,079.53	8,761.28	-4,836.54	14,451,891.57	1,718,322.58	39.79413454	-80.722646
15,700.00	91.00	330.11	6,077.79	8,847.96	-4,886.37	14,451,978.25	1,718,272.75	39.79437302	-80.722822
15,800.00	91.00	330.11	6,076.05	8,934.65	-4,936.20	14,452,064,93	1,718,222.92	39.79461150	-80.722999
15,900.00	91.00	330.11	6,074.30	9,021.33	-4,986.03	14,452,151,62	1,718,173.09	39.79484998	-80.723175
16,000.00	91.00	330.11	6,072.56	9,108.01	-5,035,86	14,452,238.30	1,718,123.27	39.79508846	-80.723352
16,100.00	91.00	330.11	6,070,82	9,194.70	-5,085.69	14,452,324.99	1,718,073.44	39.79532694	-80.723528
16,200.00	91.00	330.11	6,069.08	9,281.38	-5,135.51	14,452,411.67	1,718,023.61	39.79556542	-80.72370
16,300.00	91.00	330.11	6,067.34	9,368.07	-5,185.34	14,452,498.35	1,717,973.78	39.79580390	-80.72388
16,400.00	91.00	330,11	6,065.60	9,454.75	-5,235.17	14,452,585.04	1,717,923,95	39.79604238	-80.72405
16,500.00	91,00	330.11	6,063.86	9,541.43	-5,285.00	14,452,671,72	1,717,874.12	39.79628086	-80.72423
16,600.00	91.00	330.11	6,062,11	9,628.12	-5,334.83	14,452,758.40	1,717,824.30	39.79651933	-80.724410
16,700.00	91.00	330.11	6,060.37	9,714.80	-5,384,66	14,452,845.09	1,717,774.47	39.79675781	-80,72458
16,800.00	91.00	330.11	6,058.63	9,801.48	-5,434,48	14,452,931.77	1,717,724,64	39.79699629	-80.72476
16,900.00	91.00	330,11	6,056.89	9,888.17	-5,484.31	14,453,018.46	1,717,674.81	39,79723477	-80.72494
17,000.00	91.00	330.11	6,055.15	9,974.85	-5,534.14	14,453,105.14	1,717,624.98	39.79747324	-80.725116
17,100.00	91.00	330,11	6,053.41	10,061.54	-5,583.97	14,453,191.82	1,717,575.15	39.79771172	-80.72529
17,200.00	91.00	330.11	6,051.67	10,148.22	-5,633.80	14,453,278.51	1,717,525.33	39,79795019	-80.72546
17,300.00	91.00	330.11	6,049.93	10,234.90	-5,683.63	14,453,365.19	1,717,475.50	39.79818867	-80.72564
17,400.00	91.00	330.11	6,048.18	10,321.59	-5,733.46	14,453,451.88	1,717,425.67	39.79842715	-80.72582
17,500.00	91.00	330.11	6,046.44	10,408.27	-5,783.28	14,453,538.56	1,717,375.84	39.79866562	-80.72599
17,600.00	91.00	330.11	6,044.70	10,494.96	-5,833.11	14,453,625.24	1,717,326.01	39.79890410	-80.72617
17,700.00	91.00	330.11	6,042.96	10,581.64	-5,882.94	14,453,711.93	1,717,276.18	39.79914257	-80.72635
17,800.00	91.00	330.11	6,041.22	10,668.32	-5,932.77	14,453,798.61	1,717,226.35	39.79938105	-80.72652
17,900.00	91.00	330.11	6,039.48	10,755.01	-5,982.60	14,453,885.30	1,717,176.53	39,79961952	-80.72670
18,000.00	91.00	330.11	6,037.74	10,841.69	-6,032.43	14,453,971.98	1,717,126.70	39,79985799	-80.72688
18,100.00	91.00	330.11	6,035.99	10,928.38	-6,082.25	14,454,058.66	1,717,076.87	39,80009647	-80.72705
18,200.00	91.00	330.11	6,034.25	11,015.06	-6,132.08	14,454,145.35	1,717,027.04	39.80033494	-80.72723
18,300.00	91.00	330.11	6,032,51	11,101.74	-6,181.91	14,454,232.03	1,716,977.21	39.80057341	-80.72741
18,400.00	91.00	330.11	6,030.77	11,188.43	-6,231.74	14,454,318.71	1,716,927.38	39.80081189	-80.72758
18,500.00	91.00	330,11	6,029.03	11,275.11	-6,281.57	14,454,405.40	1,716,877.56	39.80105036	-80.72776
18,600.00	91.00	330.11	6,027.29	11,361.79	-6,331.40	14,454,492.08	1,716,827.73	39.80128883	-80.72794
18,700.00	91.00	330.11	6,025.55	11,448.48	-6,381.23	14,454,578.77	1,716,777.90	39.80152730	-80.72811
18,800.00	91.00	330.11	6,023.81	11,535.16	-6,431.05	14,454,665.45	1,716,728.07	39.80176578	-80.72829
18,900.00	91.00	330.11	6,022.06	11,621.85	-6,480.88	14,454,752.13	1,716,678.24	39.80200425	-80.72846
19,000.00	91.00	330.11	6,020.32	11,708.53	-6,530.71	14,454,838.82	1,716,628.41	39.80224272	-80.72864
19,100.00	91.00	330.11	6,018.58	11,795.21	-6,580.54	14,454,925.50	1,716,578.59	39.80248119	-80.72882
19,200.00	91.00	330.11	6,016.84	11,881.90	-6,630.37	14,455,012.19	1,716,528.76	39.80271966	-80,72899
19,300.00	91.00	330.11	6,015.10	11,968.58	-6,680.20	14,455,098.87	1,716,478.93	39,80295813	-80.72917
19,400.00	91.00	330.11	6,013,36	12,055,27	-6,730.02	14,455,185.55	1,716,429.10	39,80319660	-80.72935
19,500.00	91.00	330.11	6,011.62	12,141.95	-6,779.85	14,455,272.24	1,716,379,27	39.80343507	-80.72952
19,592.80	91,00	330.11	6,010,00	12,222.39	-6,826.09	14,455,352,68	1,716,333.03	39.80365637	-80,72969
PBHL/TC	19592,80 MI	6010.00 TVD							
19,592.81	91.00	330.11	6,010.00	12,222.40	-6,826.10	14,455,352.69	1,716,333.03	39,80365639	-80.72969



Database: Company: DB_Jul2216dt_v14 lt

Project:

Tug Hill Operating LLC Marshall County, West Virginia.

Site:

Knob Creek

Well:

Knob Creek N-03HM (slot C)

Wellbore:

Original Hole

Design:

rev2

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Knob Creek N-03HM (slot C)

GL=737 @ 737.00usft GL=737 @ 737.00usft

Grid

Minimum Curvature

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir.	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Knob Creek N-03HM BH - plan hits target cent - Point	0.00 ter	0.00	6,010.00	12,222.40	-6,826.10	14,455,352.69	1,716,333.03	39.80365639	-80.72969225
Knob Creek N-03HM LP - plan misses target of - Point	0.00 center by 48.1	0.00 9usft at 661	6,237.00 1.41usft MD	964.07 (6235.88 TVD	-356.10), 947.90 N, -4	14,444,094.36 401.48 E)	1,722,803.03	39,77268216	-80.70678673
Knob Creek N-03HM LP - plan misses target of Point	0.00 center by 76.4	0.00 5usft at 660	6,237.00 1.34usft MD	964.07 (6235.70 TVD	-326.10), 938.42 N, -	14,444,094.36 398.10 E)	1,722,833.03	39.77268189	-80.70667995

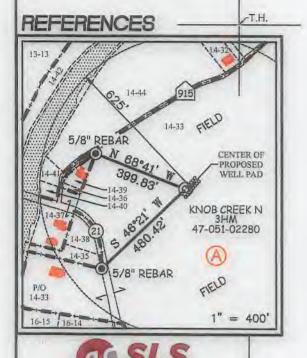
Plan Annotations									
Meas Der (us	oth	Vertical Depth (usft)	Local Coor +N/-S (usft)	dinates +E/-W (usft)	Comment				
1.4	100.00	1,400.00	0.00	0.00	KOP Begin 2°/100' build				
1.5	500.00	1,499.98	0.39	-1.70	Begin 2.00° tangent section				
3,1	101.00	3,100.00	12.96	-56.14	Begin 2°/100' build/turn				
3.4	193.04	3,490.25	42.57	-73.03	Begin 8.75° tangent section				
5,6	676.04	5,647.85	354.63	-186.61	Begin 8°/100' build				
6.3	316,66	6,159.14	683,29	-306.24	Begin 10°/100' build/turn				
	26.68	6,235.82	962.29	-406.60	Begin 2°/100' turn				
7,1	141.18	6,226.82	1,428.84	-621.65	Begin 91.00° lateral section				
19,5	592.80	6,010.00	12,222.39	-6,826.09	PBHL/TD 19592.80 MD 6010	.00 TVD			

RECEIVED Office of Oil and Gas

FEB 1 9 2021

KNOB CREEK N LEASE WELL 3HM TUG HILL OPERATING

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-6-1.2	CONSOLIDATION COAL COMPANY, MURRAY ENERGY	2.222
9-6-3.1	CONSOLIDATION COAL COMPANY, MURRAY ENERGY	10.00
9-10-9	J. F. CROW EST., ET AL	17 AC, 14 P.
9-10-16	WILLIAM D. MCCONNELL	0.859
9-11-1	GERALD F. PADLOW	1,033
9-11-2.1	KENNETH P. GATEWOOD, ET UX	0.308
9-11-2.2	GERALD F. PADLOW, ET UX	0.291
9-13-10	ARTHUR L. MOORE	3.96
9-13-12.1	ROBERT T. & BARBARA A. ANKROM	2.632
9-13-13.1	THOMAS JOHN FOX	0.827
9-13-14	MARGARET K. FOX - LIFE	3.00
9-13-16	IVAN H. & MARGARET A. RICHMOND	21,354
9-14-1,2	KENNETH N. & TERESA A. SMERTNECK	1,02
9-14-11.3	PATRICK J. SCHELLHASE - TRUST	23,424
9-14-28	CHARLES R. SCHELLHASE, ET UX	3,029
9-14-29	ANDREW FASOULETOS, ET UX	0.209
9-14-29.1	ANDREW FASOULETOS, ET UX	1.171
9-14-30	WILLIAM C. GROFT, ET UX	0.35
9-14-31	WILFORD F, NELSON, JR., ET UX	0.954
9-14-32	TWILA C. COFFIELD	0.583
9-14-32.1	TWILA C. COFFIELD	0.184



T.H. LATITUDE 39°47'30' B.H. LATITUDE 39°50'00'

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) NAD'83 S.P.C.(FT) N. 464,858.15 E. 1,629,653.80 LAT-(N) 39,770031 LONG-(W) 80.705531 NAD'83 GEO.

N. 4,402,274.92 NAD'83 UTM (M) LANDING POINT

NAD'83 S.P.C.(FT) N. 466,297.7 LAT-(N) 39.773961 NAD'83 GEO. N. 4,402,710.4 NAD'83 UTM (M)

E. 1,629,055.9 LONG-(W) 80.707726 E. 525,030.5

E. 525,219.95

80°42'30"

LONGITUDE

T.H. B.H.

BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 477, 197.0 E. 1.623.030.6 NAD'83 GEO. LAT-(N) 39.803656 LONG-(W) 80.729692 NAD'83 UTM (M) N. 4.406.000.3 E. 523,139,4

MAP/PARCEL	ADJOINING SURFACE OWNER LIST - CONTINUED	ACRES
9-14-35	PAUL G. FOX	0,338
9-14-36	MARGARET FOX - LIFE	1600 SQ. FT.
9-14-37	MARGARET FOX - LIFE	LOT
9-14-38	MARGARET FOX - LIFE	0.631
9-14-39	MARGARET FOX - LIFE	8675 SQ, FT.
9-14-40	MARGARET FOX - LIFE	19,560 SQ. FT
9-14-41	MARGARET FOX - LIFE	9165 SQ. FT.
9-14-42	JOHN C. LAGOS, ET UX	1.87
9-14-44	DAVID LEE FRANKLIN	2.913
9-14-44.1	GEORGE R. TAYLOR, ET UX	4.423
9-14-45	GEORGE R. TAYLOR, ET UX	10.98
9-14-46	MARGARET K. FOX - LIFE	18.888
9-14-47	MICHAEL L. & CHERYL J. ACREE	0.355
9-14-48	MICHAEL L. & CHERYL J. ACREE	0.473
9-14-49	MICHAEL L. & CHERYL J. ACREE	0.118
9-14-50	RONALD MARSH	0.707
9-14-51	GEORGE R. TAYLOR, ET UX	1.621
9-14-52	JAMES E. PEELMAN	0.439
9-14-53	JAMES E. PEELMAN	0.555
9-14-54	RICHARD L. HARVETH, ET UX	1.649
9-16-14	LYNN CAMP METHODIST CHURCH	0.762
9-16-15	RONALD R. YOUNG, ET UX - LIFE	52.02
9-16-15.1	ERIC J. YOUNG	1.98

NOTES ON SURVEY

NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCES FOR DWELLINGS LOCATED WITHIN 625' OF THE CENTER OF PROPOSED

WELL PAD.
WELL SPOT CIRCLE & TOPO MARK SCALE IS

B.H.

1"=2000'. BASED ON WY DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.

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 THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

1412 Kanawiia Boulevard, East | Charleston, WV 25301 | 304/346.3952

OF ACCURACY

PS 849

MINIMUM DEGREE

No. 849
STATE OF
STONAL SURVIVALENCE
STONAL SURVIVAL SURVIVAL SURVIVAL SURVIVAL SURVIVAL SURVIVAL SURVIVAL SURVIVAL SURVIVAL S FILE NO. 8789P3HMR3.dwg 1/2500

KNOB CREEK N-3HM-REV2

1" = 2000" SCALE HORIZONTAL & VERTICAL DGPS (SURVEY GRADE TIE TO CORS NETWORK) CONTROL DETERMINED BY

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

JULY 27 DATE REVISED _09-30-2019, 08-28-2020, 10-29-2020

OPERATORS WELL NO. _ KNOB CREEK N-3HM API

COUNTY

WELL 051 NO.

STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION

OFFICE OF OIL AND GAS

STATE

QUADRANGLE

ACREAGE

ACREAGE _



GLEN EASTON 7.5'

65.824±

65.824±

LIQUID WELL WASTE GAS_X_INJECTION TYPE: OIL DISPOSAL "GAS" PRODUCTION X STORAGE DEEP SHALLOW LOCATION: ELEVATION __737.50 FISH CREEK (HUC 10)

WATERSHED MEADE DISTRICT MARSHALL COUNTY

DAVID LEE FRANKLIN SURFACE OWNER.

DAVID LEE FRANKLIN, ET AL - SEE WW-6A1 ROYALTY OWNER -PROPOSED WORK :

DRILL X CONVERT _ __ DRILL DEEPER __ REDRILL ____

SEE WW-6A1 LEASE NO. _ FRACTURE OR STIMULATE X PLUG OFF OLD

FORMATION ____ PERFORATE NEW FORMATION ____ PLUG AND ABANDON _ CLEAN OUT AND REPLUG_ OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION _ MARCELLUS ESTIMATED DEPTH TVD: 6,352' / TMD: 19,593'

WELL OPERATOR TUG HILL OPERATING, LLC

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500

FORT WORTH, TX 76107

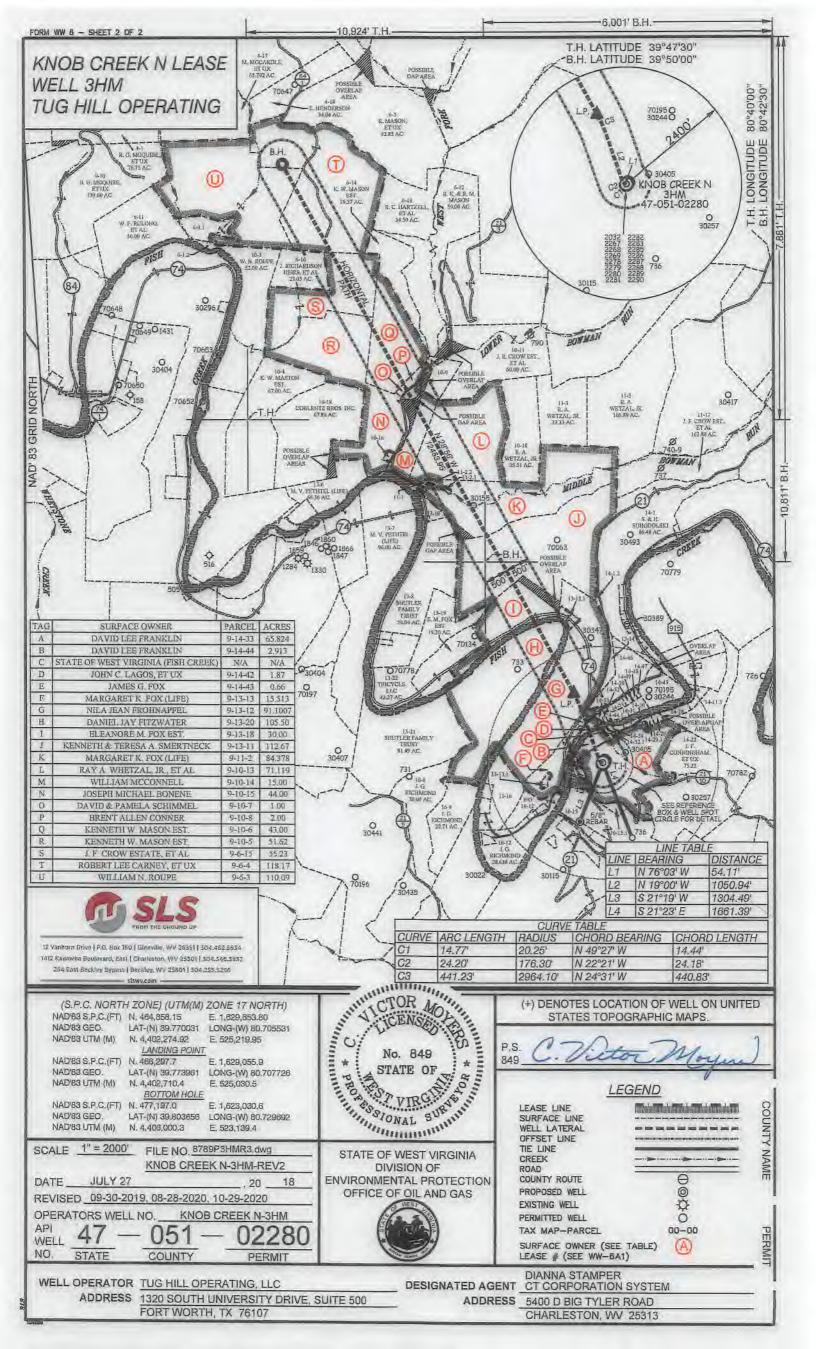
DESIGNATED AGENT

DIANNA STAMPER CT CORPORATION SYSTEM

ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313 PERMIT

COUNTY

NAME







Well Site Safety Plan Tug Hill Operating, LLC

Well Name: Knob Creek N-3HM

Pad Location: Knob Creek

gr/29/2020

Wetzel County, West Virginia

UTM (meters), NAD83, Zone 17:

Northing: 4,402,274.92 Easting: 525,219.95

October 2020

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 attached pages

Office of Oil and Gas

FEB 1 9 2021

WV Department of Environmental Protection

*Co-tenancy utilization — At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act.

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: Tug Hill Operating, LLC

By: Amy L. Morris MULA LLOTTEL

Its: Permitting Specialist - Appalachia Region

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment							
10*47051,219,1	9-14-33	A	DAVID LEE FRANKLIN	TH EXPLORATION LLC	1/8+	874	312	N/A							
10*47051,219,1	9-14-44	В	DAVID LEE FRANKLIN	TH EXPLORATION LLC	1/8+	937	385	N/A							
10*23458	FISH CREEK	c	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	TH EXPLORATION LLC	1/8+	1019	373	N/A							
10*19538	9-14-42	D	JOHN C LAGOS AND CYNTHIA M LAGOS	TH EXPLORATION LLC	1/8+	936	531	N/A							
			WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF	THE EAST CONTINUE CON	1 2/0:	330	331	14/7	197	19/4		.47.			
10*19565	9-14-42	D	HIGHWAYS	TH EXPLORATION LLC	1/8+	947	566	N/A							
10*19418	9-14-43	E	NILA JEAN FROHNAPFEL	TH EXPLORATION LLC	1/8+	940	344	N/A							
10*18732	9-14-43	E	SHERRILL M LEAVERS AND JAMES H LEAVERS	TH EXPLORATION LLC	1/8+	938	245	N/A							
10*18734	9-14-43	E	KENNETH EMERY AND MARTHA LEMERY	TH EXPLORATION LLC	1/8+	938	247	N/A							
10*18735	9-14-43	E	DIANE E AND DENNIS P FOWLER	TH EXPLORATION LLC	1/8+	938	243	N/A							
10*18736	9-14-43	E	DOROTHY JEAN HUSTON AND KENNETH HUSTON	TH EXPLORATION LLC	1/8+	938	221	N/A							
10*19401	9-14-43	F	JOYCE A WILSON AND D MURPHY WILSON	TH EXPLORATION LLC	1/8+	940	346	N/A							
10*19402	9-14-43	E	HOWARD G AND CLARA J RICHMOND	TH EXPLORATION LLC	1/8+	940	348	N/A							
10*19474	9-14-43	E	EDGAR ALLEN RICHMOND	TH EXPLORATION LLC	1/8+	941	318	N/A							
10*19475	9-14-43	E	ARDETH L PIPER AND PAUL E PIPER	TH EXPLORATION LLC	1/8+	941	316	N/A							
10*19481	9-14-43	E	WILLIAM EMERY	TH EXPLORATION LLC	1/8+	941	314	N/A							
10*19674	9-14-43	E	DEBRA SHORT AND RODNEY SHORT	TH EXPLORATION LLC	1/8+	944	337	N/A							
10*19675	9-14-43	E	BARBARA C LEISHMAN AND DANNY K LEISHMAN	TH EXPLORATION LLC	1/8+	944	432	N/A							
10*19714	9-14-43	E	DAVID A ROBINSON AND PATRICIA A ROBINSON	TH EXPLORATION LLC	1/8+	944	434	N/A							
10*19868	9-14-43	E	TERRI J STREAM AND JOHN T STREAM	TH EXPLORATION LLC	1/8+	945	580	N/A							
10*19869	9-14-43	E	SHIRLEY J DUFFY	TH EXPLORATION LLC	1/8+	945	578	N/A							
10*19870	9-14-43	F	DORIS L MASTERS AND ROY N MASTERS	TH EXPLORATION LLC	1/8+	945	576	N/A							
10*21027	9-14-43		MARY D LING	TH EXPLORATION LLC	1/8+	951	126	N/A							
10*21087	9-14-43	E	THOMAS E DODD AND ANITA M DODD	TH EXPLORATION LLC	1/8+	951	124	N/A							
10*21088	9-14-43	F	DONALD E WEST AND MARTHA E WEST	TH EXPLORATION LLC	1/8+	951	122	N/A							
10*21104	9-14-43	E	LARRY W BAILEY AND MARSHA K BAILEY	TH EXPLORATION LLC	1/8+	951	131	N/A							
			THE CALVIN O WILLIAMS & PATSY S WILLIAMS REVOCABLE LIVING		1 -70			.,,,,		.,,,,	.,,				
10*21105	9-14-43	Е	TRUST	TH EXPLORATION LLC	1/8+	951	137	N/A							
10*21107	9-14-43	E	RONALD L WEST	TH EXPLORATION LLC	1/8+	951	135	N/A							
10*21108	9-14-43	E	SANDRA A WHITE	TH EXPLORATION LLC	1/8+	951	140	N/A							
10*21491	9-14-43	E	DARLENA BRY AND LEE V BRY	TH EXPLORATION LLC	1/8+	957	290	N/A							
10*21507	9-14-43	E	DONALD FURLONG AND LISA K FURLONG	TH EXPLORATION LLC	1/8+	951	128	N/A							
10*21838	9-14-43	E	FIRST PRESBYTERIAN CHURCH OF CLARKSBURG	TH EXPLORATION LLC	1/8+	959	625	N/A							
10*21956	9-14-43	E	THEODORE F MASLOWSKI AND ANITA MASLOWSKI	TH EXPLORATION LLC	1/8+	960	13	N/A							
10*21963	9-14-43	E	LINDA R JANSSEN AND DENNIS D JANSSEN	TH EXPLORATION LLC	1/8+	960	28	N/A							
10*21964	9-14-43	E	WILLIAM R DODD AND SHIRLEY A DODD	TH EXPLORATION LLC	1/8+	960	30	N/A							
10*21983	9-14-43	E	OPAL V BUCKMASTER	TH EXPLORATION LLC	1/8+	953	497	N/A							
10*22113	9-14-43	Е	SYLVIA D WEST	TH EXPLORATION LLC	1/8+	962	224	N/A							
10*22117	9-14-43	E	DEBORAH L WROBEL AND GREGORY G WROBEL	TH EXPLORATION LLC	1/8+	961	354	N/A							
10*22119	9-14-43	E	JAMES S RICHMOND	TH EXPLORATION LLC	1/8+	953	499	N/A							
10*22121	9-14-43	Е	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION LLC	1/8+	961	352	N/A							
10*22377	9-14-43	E	MONTY W BAILEY AND MARTHA E BAILEY	TH EXPLORATION LLC	1/8+	962	226	N/A							
10*22378	9-14-43	E	KEVIN R RICHMOND AND VALERIE L RICHMOND	TH EXPLORATION LLC	1/8+	962	228	N/A							
10*22458	9-14-43	E	JAMES RICHMOND AND CINDY L RICHMOND	TH EXPLORATION LLC	1/8+	963	132	N/A							
10*22463	9-14-43	E	STEVEN R MCCLINTOCK	TH EXPLORATION LLC	1/8+	964	458	N/A							
10*22517	9-14-43	E	PHYLLIS M RADER	TH EXPLORATION LLC	1/8+	964	456	N/A							
10*22545	9-14-43	E	JANICE L MASLOWSKI AND FLOYD F MECHLING	TH EXPLORATION LLC	1/8+	968	9	N/A							
10*23140	9-14-43	E	MELISSA JENKINS	TH EXPLORATION LLC	1/8+	984	86	N/A							
10*23144	9-14-43	E	MARGARET A WALTERS	TH EXPLORATION LLC	1/8+	984	84	N/A							
10*23145	9-14-43	E	WILLIAM BENNETT	TH EXPLORATION LLC	1/8+	984	82	N/A							
10*23146	9-14-43	E	RETA I GRIFFIN AND MARTIN A GRIFFIN	TH EXPLORATION LLC	1/8+	984	80	N/A							
10*23154	9-14-43		CAROLYN FAY BENNETT	TH EXPLORATION LLC	1/8+	984	78	N/A							
10*23188	9-14-43	E	LISA MCMANUS	TH EXPLORATION LLC	1/8+	984	530	N/A							

RECEIVED Office of Oil and Gas

FEB 1 9 2021

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment							
*23299	9-14-43	E	PATRICIA L BECK	TH EXPLORATION LLC	1/8+	988	19	N/A							
*23312	9-14-43	E	DONNA M CARTER	TH EXPLORATION LLC	1/8+	988	17	N/A							
	10 -0 -0	177	ROBERT TOOMBS WRIGHT MONTAGUE BY DAVID C WHITE, ESQ,												
*23559	9-14-43	E	GUARDIAN AT LITEM	TH EXPLORATION LLC	1/8+	1009	249	N/A							
			JOHN WILLIAM MACKENZIE MONTAGUE BY DAVID C WHITE, ESQ,												
+23577	9-14-43	E	GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009	253	N/A							
		-	DUDLEY PORTER THAYER MONTAGUE JR BY DAVID C WHITE, ESQ,		1										100000
*23578	9-14-43	E	GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009	251	N/A							
*24740	9-14-43	E	*RICARDO THOMAS MAYA	TH EXPLORATION LLC	1/8+	1025	614	N/A							
*25442	9-14-43	E	SARAH BETH PREWITT ET AL	TH EXPLORATION LLC	1/8+	1033	297	N/A							
27947	9-14-43	E	STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC.	1/8+	1063	568	N/A							
*18732	9-13-13	F	SHERRILL M LEAVERS AND JAMES H LEAVERS	TH EXPLORATION LLC	1/8+	938	245	N/A							
*18734	9-13-13	F	KENNETH EMERY AND MARTHA LEMERY	TH EXPLORATION LLC	1/8+	938	247	N/A							
1*18735	9-13-13	F	DIANE E AND DENNIS P FOWLER	TH EXPLORATION LLC	1/8+	938	243	N/A							
18736	9-13-13	F	DOROTHY JEAN HUSTON AND KENNETH HUSTON	TH EXPLORATION LLC	1/8+	938	221	N/A							
7*19401	9-13-13	F	JOYCE A WILSON AND D MURPHY WILSON	TH EXPLORATION LLC	1/8+	940	346	N/A							
*19402	9-13-13	P	HOWARD G AND CLARA J RICHMOND	TH EXPLORATION LLC	1/8+	940	348	N/A							
*19474	9-13-13	E	EDGAR ALLEN RICHMOND	TH EXPLORATION LLC	1/8+	941	318	N/A							
)*19475	9-13-13	F	ARDETH L PIPER AND PAUL E PIPER	TH EXPLORATION LLC	1/8+	941	316	N/A							
0*19481	9-13-13	F	WILLIAM EMERY	TH EXPLORATION LLC	1/8+	941	314	N/A							
0*19674	9-13-13	F	DEBRA SHORT AND RODNEY SHORT	TH EXPLORATION LLC	1/8+	944	337	N/A							
0*19675	9-13-13	F	BARBARA C LEISHMAN AND DANNY K LEISHMAN	TH EXPLORATION LLC	1/8+	944	432	N/A							
D*19714	9-13-13	F	DAVID A ROBINSON AND PATRICIA A ROBINSON	TH EXPLORATION LLC	1/8+	944	434	N/A							
*19868	9-13-13	F	TERRI J STREAM AND JOHN T STREAM	TH EXPLORATION LLC	1/8+	945	580	N/A							
*19869	9-13-13	F	SHIRLEY J DUFFY	TH EXPLORATION LLC	1/8+	945	578	N/A							
19870	9-13-13	F	DORIS L MASTERS AND ROY N MASTERS	TH EXPLORATION LLC	1/8+	945	576	N/A							
)*21027	9-13-13	F	MARY D LING	TH EXPLORATION LLC	1/8+	951	126	N/A							
0*21087	9-13-13	E	THOMAS E DODD AND ANITA M DODD	TH EXPLORATION LLC	1/8+	951	124	N/A							
0*21088	9-13-13	F	DONALD E WEST AND MARTHA E WEST	TH EXPLORATION LLC	1/8+	951	122	N/A							
0*21104	9-13-13	F	LARRY W BAILEY AND MARSHA K BAILEY	TH EXPLORATION LLC	1/8+	951	131	N/A							
			THE CALVIN O WILLIAMS & PATSY 5 WILLIAMS REVOCABLE LIVING								7		71		
21105	9-13-13	F	TRUST	TH EXPLORATION LLC	1/8+	951	137	N/A							
0*21107	9-13-13	F	RONALD L WEST	TH EXPLORATION LLC	1/8+	951	135	N/A							
0*21108	9-13-13	F	SANDRA A WHITE	TH EXPLORATION LLC	1/8+	951	140	N/A							
0*21491	9-13-13	F	DARLENA BRY AND LEE V BRY	TH EXPLORATION LLC	1/8+	957	290	N/A							
°21507	9-13-13	F	DONALD FURLONG AND LISA K FURLONG	TH EXPLORATION LLC	1/8+	951	128	N/A							
0*21838	9-13-13	F	FIRST PRESBYTERIAN CHURCH OF CLARKSBURG	TH EXPLORATION LLC	1/8+	959	625	N/A							
0*21956	9-13-13	F	THEODORE F MASLOWSKI AND ANITA MASLOWSKI	TH EXPLORATION LLC	1/8+	960	13	N/A							
*21963	9-13-13	F	LINDA R JANSSEN AND DENNIS D JANSSEN	TH EXPLORATION LLC	1/8+	960	28	N/A							
*21964	9-13-13	F	WILLIAM R DODD AND SHIRLEY A DODD	TH EXPLORATION LLC	1/8+	960	30	N/A	N/A	N/A.	N/A	N/A	N/A	N/A	N/A
*21983	9-13-13	F	OPAL V BUCKMASTER	TH EXPLORATION LLC	1/8+	953	497	N/A	N/A	N/A.	N/A	N/A	N/A	N/A	N/A
*22113	9-13-13	F	SYLVIÀ D WEST	TH EXPLORATION LLC	1/8+	962	224	N/A							
*22117	9-13-13	F	DEBORAH L WROBEL AND GREGORY G WROBEL	TH EXPLORATION LLC	1/8+	961	354	N/A							
*22119	9-13-13	F	JAMES S RICHMOND	TH EXPLORATION LLC	1/8+	953	499	N/A							
*22121	9-13-13	F	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION LLC	1/8+	961	352	N/A							
*22377	9-13-13	F	MONTY W BAILEY AND MARTHA E BAILEY	TH EXPLORATION LLC	1/8+	962	226	N/A							
*22378	9-13-13	F	KEVIN R RICHMOND AND VALERIE L RICHMOND	TH EXPLORATION LLC	1/8+	962	228	N/A							
*22458	9-13-13	F	JAMES RICHMOND AND CINDY L RICHMOND	TH EXPLORATION LLC	1/8+	963	132	N/A							
*22463	9-13-13	F	STEVEN R MCCLINTOCK	TH EXPLORATION LLC	1/8+	964	458	N/A							
*22517	9-13-13	F	PHYLLIS M RADER	TH EXPLORATION LLC	1/8+	964	456	N/A							
*22545	9-13-13	F	JANICE L MASLOWSKI AND FLOYD F MECHLING	TH EXPLORATION LLC	1/8+	968	9	N/A							
*23140	9-13-13	F	MELISSA JENKINS	TH EXPLORATION LLC	1/8+	984	86	N/A							
0*23144	9-13-13	F	MARGARET A WALTERS	TH EXPLORATION LLC	1/8+	984	84	N/A							

Office of Oil and Gas

FEB 1 9 2021

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
0*23145	9-13-13	F	WILLIAM BENNETT	TH EXPLORATION LLC	1/8+	984	82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23146	9-13-13	F	RETA I GRIFFIN AND MARTIN A GRIFFIN	TH EXPLORATION LLC	1/8+	984	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23154	9-13-13	F	CAROLYN FAY BENNETT	TH EXPLORATION LLC	1/8+	984	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23188	9-13-13	F	LISA MCMANUS	TH EXPLORATION LLC	1/8+	984	530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23299	9-13-13	F	PATRICIA L BECK	TH EXPLORATION LLC	1/8+	988	19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23312	9-13-13	F	DONNA M CARTER	TH EXPLORATION LLC	1/8+	988	17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7.7.20.000			ROBERT TOOMBS WRIGHT MONTAGUE BY DAVID C WHITE, ESQ.					7,617							
10*23559	9-13-13	E	GUARDIAN AT LITEM	TH EXPLORATION LLC	1/8+	1009	249	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			JOHN WILLIAM MACKENZIE MONTAGUE BY DAVID C WHITE, ESQ.			4.1.7									
10*23577	9-13-13	F	GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009	253	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			DUDLEY PORTER THAYER MONTAGUE JR BY DAVID C WHITE, ESQ.		-	7,500							1		
10*23578	9-13-13	F	GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009	251	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24740	9-13-13	P	*RICARDO THOMAS MAYA	TH EXPLORATION LLC	1/8+	1025	614	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*25442	9-13-13	F	SARAH BETH PREWITT ET AL	TH EXPLORATION LLC	1/8+	1033	297	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27947	9-13-13	F	STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC	1/8+	1063	568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24858	9-13-12	G	NILA JEAN FROHNAPFEL	TH EXPLORATION LLC	1/8+	1028	119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TILE WAS P	7.77.10				74.1				14,000	1		Cert of Merger of	The state of the state of		
						,				Chesapeake	Statoil USA Onshor		The section is		
										Appalachia LLC to	Properties Inc to	Titleholder LLC to	Chesapeake		Statoil USA Onshore
	1)				Statoil USA Onshore	SWN Exchange	SWN Production	Appalachia LLC to	SWN Production	Properties Inc to TH
										Canada Sari Panagana	Titleholder LLC:	Company LLC:	SWN Production Co.	Company LLC to TH	Exploration LLC:
10117102	0.40.00	6	Invite team	CUECADO NO ADDALACINA LLO	1/6	71.5	47	No. of	N/A	Properties Inc: 29/325	33/424	19/624	LLC: 33/110	Exploration LLC: 41/256	
10*17193 10*18351	9-13-20	Н.	JOHN P. ICARD	CHESAPEAKE APPALACHIA LLC	1/8+	716	12	N/A	N/A	29/325 N/A	N/A	N/A	N/A	N/A	N/A
10*18351	9-13-20 9-13-20	H	MARK ALLEN LENENBERG	TH EXPLORATION LLC	1/8+	931	399 180	N/A N/A	N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A
10*18459	9-13-20	н	DANIEL J FITZWATER THOMAS RICHMOND YOUNG ANITA A YOUNG	TH EXPLORATION LLC TH EXPLORATION LLC	1/8+	933 933	151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18470	9-13-20	H	CHERYL STEFFEN AND GREGORY STEFFEN	TH EXPLORATION LLC	1/8+	933	148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18470	9-13-20	H	MORGAN C GUMP AND MARY J GUMP	TH EXPLORATION LLC	1/8+	933	210	N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18471	9-13-20	H	LEIGH A DURRAH	TH EXPLORATION LLC	1/8+	933	136	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18524	9-13-20	Н	DAVID A GUMP AND BETTY J GUMP	TH EXPLORATION LLC	1/8+	933	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18524	9-13-20	H			1/8+		589	N/A N/A	N/A	N/A	N/A	N/A N/A	N/A	N/A	N/A
10*18967	9-13-20	H	ANN TURNER YOUNG SHRIVER	TH EXPLORATION LLC TH EXPLORATION LLC	1/8+	933	266	N/A N/A	N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A
10*19349	9-13-20	H	NATALIE GIBBS MARIOLEA A DEBOLD				409	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19549	9-13-20	н	100000000000000000000000000000000000000	TH EXPLORATION LLC	1/8+	932	41.5	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19516	9-13-20		JAMES E NICHOLAS AND BEVERLY D NICHOLAS	TH EXPLORATION LLC	1/8+		366 547		N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A
10*19885		H	JILL A WILLIAMS AND TERRY L WILLIAMS	TH EXPLORATION LLC	1/8+	948		N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A	N/A	N/A	N/A
10*19886	9-13-20	Н	NANCY L RICHMOND AND GREGORY RICHMOND	TH EXPLORATION LLC	1/8+	948	549	N/A N/A	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A
	9-13-20	Н	MARK A RICHMOND & LISA D RICHMOND	TH EXPLORATION LLC	1/8+	948	543	- 77.5	14.55				N/A N/A	N/A	N/A
10*19887	9-13-20	H	ELIZABETH S SCOVELL & JONATHAN A SCOVELL	TH EXPLORATION LLC	1/8+	948	545	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A N/A	N/A
10*19892	9-13-20	Н	REX B FISHER AND DEBORAH FISHER	TH EXPLORATION LLC	1/8+	948	292	N/A	N/A	N/A	N/A		N/A N/A	N/A	N/A
10*21012	9-13-20	Н	TIMOTHY R RICHMOND II AND BRANDI N RICHMOND	TH EXPLORATION LLC	1/8+	951	149	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A
10*21014	9-13-20	Н	JAMES P MCLAUGHLIN & ALICE W MCLAUGHLIN	TH EXPLORATION LLC	1/8+	946	29	N/A	N/A	N/A	N/A	N/A		N/A N/A	N/A
10*21015	9-13-20	Н	ROBERT L MCLAUGHLIN	TH EXPLORATION LLC	1/8+	946	339	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A
10*21485	9-13-20	H	ROBERT R FISHER AND AUDREY LIRVIN	TH EXPLORATION LLC	1/8+	942	572	N/A	N/A	N/A	N/A	N/A		N/A N/A	N/A
10*21504	9-13-20	Н	PAULETA LINDA CHEATHAM AND CARL WOHLERS	TH EXPLORATION LLC	1/8+	951	142	N/A	N/A	N/A	N/A	N/A	N/A		N/A N/A
10*21598	9-13-20	н	THE MILDRED Y MILLS TRUST JULY 5TH 2007	TH EXPLORATION LLC	1/8+	954	332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A
10*21709	9-13-20	Н	THOMAS YOUNG AND JANE CLAIRE YOUNG	TH EXPLORATION LLC	1/8+	959	350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*21710	9-13-20	H.	PENELOPE A JONES	TH EXPLORATION LLC	1/8+	959	355	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22863	9-13-20	Н	JAMES H CAMPBELL	TH EXPLORATION LLC	1/8+	977	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22864	9-13-20	H	MARGARET R DONOFRIO	TH EXPLORATION LLC	1/8+	977	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

RECEIVED Office of Oil and Gas

FEB 1 9 2021

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
Lease ID	raicei	Tag	Grantor, Lessor, Etc.	Giantee, Lessee, Etc.	Royalty	Deed Bo	JUK/ Fage	Assignment	Assignment	Hope Natural Gas	Assignment	Assignment	Assignment	rissigninent	7.00.8
										1					
				}				1		Company to AM	Live dead Can				
					-					Snider and Duane M	Hundred Gas	a I B B with a ke	01 0:1 9 61	Chana Francia Componention	FOT Production
					- 1		1			Snider dba Hundred	Company to Carl D		1	Stone Energy Corporation	
					1 . 1		1	l .		Gas Company:	Perkins: 451/132 &		to Stone Energy	to EQT Production	Company to TH
10*23164	9-13-20	H	J C RICHMOND AND MARY RICHMOND	TG STILES	1/8+	63	154	N/A	N/A	446/186	451/418	Inc: 583/72	Corporation: 26/322	Company: 38/75	Exploration LLC: 48/2
			COUNTY OF MARSHALL GENERAL RECEIVER FOR MARSHALL		1 1		1								i
10*23190	9-13-20	Н	COUNTY	TH EXPLORATION LLC	1/8+	979	191	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27947	9-13-20	Н	STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC	1/8+	1063	568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18351	9-13-18	-	MARK ALLEN LENENBERG	TH EXPLORATION LLC	1/8+	931	399	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18469	9-13-18	1	THOMAS RICHMOND YOUNG ANITA A YOUNG	TH EXPLORATION LLC	1/8+	933	151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18470	9-13-18	1	CHERYL STEFFEN AND GREGORY STEFFEN	TH EXPLORATION LLC	1/8+	933	148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18527	9-13-18		ANN TURNER YOUNG SHRIVER	TH EXPLORATION LLC	1/8+	933	589	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18694	9-13-18	1	PEGGY A GOULDSBERRY AND JOSEPH W GOULDSBERRY	TH EXPLORATION LLC	1/8+	938	283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18695	9-13-18		JOSEPH S EMERY	TH EXPLORATION LLC	1/8+	938	572	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18696	9-13-18	i	CHARLES E EMERY AND DEBBIE EMERY	TH EXPLORATION LLC	1/8+	938	280	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18697	9-13-18	<u> </u>	CHRYSTAL L RINE AND JOHN O RINE	TH EXPLORATION LLC	1/8+	938	499	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18698	9-13-18		LORETTA K CONNER AND OBERT L CONNER	TH EXPLORATION LLC	1/8+	938	490	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18699	9-13-18		JAMIE A LANTZ AND JAMES L LANTZ	TH EXPLORATION LLC	1/8+	938	286	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18700	9-13-18	-	NOVA PAYNE	TH EXPLORATION LLC	1/8+		488	N/A N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18701						938				N/A N/A	N/A	N/A	N/A	N/A	N/A
	9-13-18	- !	SHERRI J ANDERSON AND GEORGE C ANDERSON	TH EXPLORATION LLC	1/8+	938	277	N/A	N/A					N/A	N/A
10*18702	9-13-18	ı	JOHN W NICE JR	TH EXPLORATION LLC	1/8+	938	496	N/A	N/A	N/A	N/A	N/A	N/A		N/A
10*24467	9-13-18		GREGORY W FRITZMAN	TH EXPLORATION LLC	1/8+	1059	232	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*18714	9-13-18	!	LARRY J RICHARDSON AND D MARGARET RICHARDSON	TH EXPLORATION LLC	1/8+	938	543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18715	9-13-18	ı	MARY ANN CROW RICHARDSON	TH EXPLORATION LLC	1/8+	938	546	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18716	9-13-18	I	MARCIA J MECHLING AND DENNIS J MECHLING	TH EXPLORATION LLC	1/8+	938	549	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18717	9-13-18	1	RACHEL E AND ALLAN L SHEASLEY	TH EXPLORATION LLC	1/8+	938	552	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18718	9-13-18	ı	PEGGY L STEWART AND DEWEY R STEWART	TH EXPLORATION LLC	1/8+	938	555	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18719	9-13-18	- 1	DONNA M CROW	TH EXPLORATION LLC	1/8+	938	504	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18829	9-13-18	ı	CAROL A SAVOY	TH EXPLORATION LLC	1/8+	937	620	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18958	9-13-18	1	NANCY L GABLER	TH EXPLORATION LLC	1/8+	941	259	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18959	9-13-18	1	SALLY L DUNMIRE AND DAVID W DUNMIRE	TH EXPLORATION LLC	1/8+	941	270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18967	9-13-18		NATALIE GIBBS	TH EXPLORATION LLC	1/8+	941	266	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19461	9-13-18	i	KELLY OCONNOR	TH EXPLORATION LLC	1/8+	942	569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19611	9-13-18	<u>i</u>	JOHN H EMERY AND JANET M EMERY	TH EXPLORATION LLC	1/8+	944	201	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19612	9-13-18		MARY JANE HYDE AND HARRY K HYDE	TH EXPLORATION LLC	1/8+	944	198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19613	9-13-18		SHEILA LYNN GARRISON	TH EXPLORATION LLC	1/8+	944	196	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19832	9-13-18	—- ;	DOWNIE E EMERY JR AND ELAINE EMERY	TH EXPLORATION LLC	1/8+	945	619	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19834	9-13-18		STEVEN D BEAKLEY	TH EXPLORATION LLC	1/8+	945	613	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		 -			 		+				N/A	N/A	N/A	N/A	N/A
10*19835	9-13-18	!-	BARBARA JEAN SAMAJ AND ANDREW J SAMAJ	TH EXPLORATION LLC	1/8+	945	616	N/A	N/A	N/A			N/A N/A	N/A N/A	N/A
10*19883	9-13-18	<u>!</u>	JILL A WILLIAMS AND TERRY L WILLIAMS	TH EXPLORATION LLC	1/8+	948	547	N/A	N/A	N/A	N/A	N/A		N/A N/A	N/A
10*19885	9-13-18	!	NANCY L RICHMOND AND GREGORY RICHMOND	TH EXPLORATION LLC	1/8+	948	549	N/A	N/A	N/A	N/A	N/A	N/A		N/A N/A
10*19886	9-13-18	I	MARK A RICHMOND & LISA D RICHMOND	TH EXPLORATION LLC	1/8+	948	543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
0*19887	9-13-18		ELIZABETH S SCOVELL & JONATHAN A SCOVELL	TH EXPLORATION LLC	1/8+	948	545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
0*19981	9-13-18	l	WILLIAM G EMERY	TH EXPLORATION LLC	1/8+	948	206	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21012	9-13-18	!	TIMOTHY R RICHMOND II AND BRANDI N RICHMOND	TH EXPLORATION LLC	1/8+	951	149	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
l0*21051	9-13-18	1	JAMES S NEPERENY AND PHOBE A NEPERENY	TH EXPLORATION LLC	1/8+	966	501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
l0*21139	9-13-18	I	JOHN C BAKER JR AND TRACIE L BAKER	TH EXPLORATION LLC	1/8+	952	167	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21251	9-13-18	1	GREGORY R BAKER AND TRACEY L BAKER	TH EXPLORATION LLC	1/8+	953	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21318	9-13-18	1	LINDA D GORDON AND JOHN L GORDON	TH EXPLORATION LLC	1/8+	944	204	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21341	9-13-18	ī	RITA M BAKER	TH EXPLORATION LLC	1/8+	953	225	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21598	9-13-18	i	THE MILDRED Y MILLS TRUST JULY 5TH 2007	TH EXPLORATION LLC	1/8+	954	332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21613	9-13-18	i	ROBERT MATTHEW KEDWARD	TH EXPLORATION LLC	1/8+	959	462	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

RECEIVED Office of Oil and Gas

FEB 1 9 2021

Operator's Well No. Knob Creek N - 3HM

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*21614	9-13-18		NICOLE RAE BRACHER-MUSTY AND JASON BRACHER-MUSTY	TH EXPLORATION LLC	1/8+	959	464	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21709	9-13-18	-	THOMAS YOUNG AND JANE CLAIRE YOUNG	TH EXPLORATION LLC	1/8+	959	350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21710	9-13-18	· ·	PENELOPE A JONES	TH EXPLORATION LLC	1/8+	959	355	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22002	9-13-18	1	DAVID E EMERY SR	TH EXPLORATION LLC	1/8+	953	223	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22038	9-13-18	i	SANDRA C SHAFFER AND RONALD G SHAFFER	TH EXPLORATION LLC	1/8+	954	334	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22271	9-13-18	i	MARY ANN CROW RICHARDSON LT ETAL	TH EXPLORATION LLC	1/8+	988	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22415	9-13-18	i	PAUL A YOUNG	TH EXPLORATION LLC	1/8+	963	344	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22497	9-13-18	1	BRANDON C CANFIELD	TH EXPLORATION LLC	1/8+	966	622	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			COUNTY OF MARSHALL GENERAL RECEIVER FOR MARSHALL		 							<u> </u>			
10*23190	9-13-18	1	COUNTY	TH EXPLORATION LLC	1/8+	979	191	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			BUENA WELLMAN ET AL C/O HERMAN LANTZ, SPECIAL												
10*23250	9-13-18	ı	COMMISSIONER	TH EXPLORATION LLC	1/8+	979	189	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27947	9-13-18	ı	STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC	1/8+	1063	568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
								.,,							
10*18265	9-13-11	J	KENNETH NELSON SMERTNECK AND TERESA ANN SMERTNECK	TH EXPLORATION LLC	1/8+	933	103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.243.1	9-11-2	К	MARY A FOX	TH EXPLORATION LLC	1/8+	879	332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.243.2	9-11-2	К	PAUL G FOX	TH EXPLORATION LLC	1/8+	879	335	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.243.3	9-11-2	К	MARK H FOX	TH EXPLORATION LLC	1/8+	879	338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.243.4	9-11-2	К	DAVID E FOX	TH EXPLORATION LLC	1/8+	876	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.243.5	9-11-2	К	LOUIS T FOX AND KAREN A FOX	TH EXPLORATION LLC	1/8+	876	58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.243.6	9-11-2	К	THOMAS J FOX	TH EXPLORATION LLC	1/8+	876	61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*15567	9-10-13	L	VICKIE J MASON	CHESAPEAKE APPALACHIA LLC	1/8+	680	409	N/A	N/A	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/6	Statoil USA Onshore Properties Inc to Chevron USA Inc: 30/427	Chesapeake Appalachia LLC to Chevron USA Inc: 30/461	Chevron USA Inc to TH Exploration LLC: 36/148
10*15568	9-10-13	L	MARY A SOUTH	CHESAPEAKE APPALACHIA LLC	1/8+	681	410	N/A	N/A	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/463	Statoil USA Onshore Properties Inc to Chevron USA Inc: 30/427	Chesapeake Appalachia LLC to Chevron USA Inc: 30/461	Chevron USA Inc to TH Exploration LLC: 36/148
10*15569	9-10-13	L	MARK L WHETZAL	CHESAPEAKE APPALACHIA LLC	1/8+	682	560	N/A	N/A	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/463	Statoil USA Onshore Properties Inc to Chevron USA Inc: 30/427	Chesapeake Appalachia LLC to Chevron USA Inc: 30/461	Chevron USA Inc to TH Exploration LLC: 36/148
10*15570	9-10-13	L	ESTATE OF RAY A WHETZAL JR	CHESAPEAKE APPALACHIA LLC	1/8+	682	584	N/A	N/A	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/463	Statoil USA Onshore Properties Inc to Chevron USA Inc: 30/427	Chesapeake Appalachia LLC to Chevron USA Inc: 30/461	Chevron USA Inc to TH Exploration LLC: 36/148
10*15571	9-10-13	L	SHARON L WHETZAL	CHESAPEAKE APPALACHIA LLC	1/8+	682	568	N/A	N/A	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 23/463	Statoil USA Onshore Properties Inc to Chevron USA Inc: 30/427	Chesapeake Appalachia LLC to Chevron USA Inc: 30/461	Chevron USA Inc to TH Exploration LLC: 36/148

RECEIVED
Office of Oil and Gas

FEB 19 2021

Operator's Well No. Knob Creek N - 3HM

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
												Chesapeake Appalachia LLC to Statoil USA Onshore	Statoil USA Onshore Properties Inc to Chevron USA Inc:	Chesapeake Appalachia	Chevron USA Inc to TH
10*15570	0.40.40	١.	DODEST LANGETTAL	CHECAREANE ARRAMACHIA LLC	4.0.			81/8		N/A	N1/A	Properties Inc: 23/463	30/427	30/461	36/148
10*15572 10*15724	9-10-13 9-10-13		ROBERT L WHETZAL JAMES RODNEY BRIGGS	CHESAPEAKE APPALACHIA LLC TH EXPLORATION LLC	1/8+	682 901	500 325	N/A N/A	N/A N/A	N/A N/A	N/A N/A	23/463 N/A	N/A	N/A	N/A
10*15725	9-10-13		ROGER JACOB BRIGGS	TH EXPLORATION LLC	1/8+	901	318	N/A N/A	N/A N/A	N/A	N/A N/A	N/A	N/A	N/A	N/A
10*15725	9-10-13	 -	JOHN DEAN BRIGGS AND PATTY KAY BRIGGS	TH EXPLORATION LLC	1/8+	901	318	N/A N/A	N/A	N/A	N/A N/A	N/A N/A	N/A	N/A	N/A
10*16079	9-10-13	-	LORI ASTON DIXON	TH EXPLORATION LLC	1/8+	901	565	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*16236	9-10-13		FRANCIS Y RIGGLE	TH EXPLORATION LLC	1/8+	904	156	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*16237	9-10-13	-	GREGORY J ASTON AND TAMMY E ASTON	TH EXPLORATION LLC	1/8+	907	149	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*16275	9-10-13	<u> </u>	JEFFREY A ASTON	TH EXPLORATION LLC	1/8+	907	153	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21206	9-10-13	-	MICHAEL BAUM	TH EXPLORATION LLC	1/8+	952	164	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27947	9-10-13		STONE HILL MINERALS HOLDINGS LLC	TH EXPLORATION LLC	1/8+	1063	568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.1	9-10-13	-	MICHAEL A WHETZEL	TH EXPLORATION LLC	1/8+	885	51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.5	9-10-13		BRENDA J WHETZEL	TH EXPLORATION LLC	1/8+	885	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.6	9-10-13		TERRI MCCARDLE	TH EXPLORATION LLC	1/8+	895	23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.7	9-10-13		GARY FRANCIS WHETZAL	TH EXPLORATION LLC	1/8+	895	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.29	9-10-13	ì	PATRICIA ANN MCDOUGAL	TH EXPLORATION LLC	1/8+	901	306	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.30	9-10-13		STEVEN L ASTON	TH EXPLORATION LLC	1/8+	901	308	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.31	9-10-13	ī	FRED T KERNS	TH EXPLORATION LLC	1/8+	901	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.36	9-10-13	1	YVONNE K BOGERT	TH EXPLORATION LLC	1/8+	901	300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.37	9-10-13		CARL E ASTON	TH EXPLORATION LLC	1/8+	901	304	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.38	9-10-13	-	CAROLYN SUE WELLS	TH EXPLORATION LLC	1/8+	901	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.41	9-10-13	ī	ELMER ASTON	TH EXPLORATION LLC	1/8+	901	296	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.48	9-10-13	1	WILLIAM ASTON	TH EXPLORATION LLC	1/8+	901	312	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.50	9-10-13	<u> </u>	DAVID U ASTON ESTATE BY EXECUTOR DAWN R MARKS	TH EXPLORATION LLC	1/8+	901	314	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.52	9-10-13	ī	CONNIE N ASTON	TH EXPLORATION LLC	1/8+	901	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.53	9-10-13	1	MARY JANE KYLE	TH EXPLORATION LLC	1/8+	901	339	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.56	9-10-13		PAULA HUNDL	TH EXPLORATION LLC	1/8+	901	347	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.57	9-10-13		ROBERT B KERNS	TH EXPLORATION LLC	1/8+	901	349	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.58	9-10-13	ī	RONALD W KERNS	TH EXPLORATION LLC	1/8+	901	341	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17 17 17 17 17 17 17 17 17 17 17 17 17 1	<u> </u>		NOTATED WINDS	THE ENGLISH CO.	1,0.	301		14/1	14/1		14,7.1	.,,,,	1,4		
10*47051.108.59	9-10-13	L	PAUL ULYSSES KERNS ESTATE SALVATORE P PUGLISI, EXECUTOR	TH EXPLORATION LLC	1/8+	901	343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.61	9-10-13	L	AMANDA FEIGH	TH EXPLORATION LLC	1/8+	901	345	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.73	9-10-13	L	JOHN ASTON JR	TH EXPLORATION LLC	1/8+	901	351	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.77	9-10-13	L	SHONDA WOOD	TH EXPLORATION LLC	1/8+	901	356	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.78	9-10-13	L	DONNA WOODS MOODY	TH EXPLORATION LLC	1/8+	901	354	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.108.79	9-10-13	L	MARK A ASTON	TH EXPLORATION LLC	1/8+	901	358	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
												Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc:	Statoil USA Onshore Properties Inc to Chevron USA Inc:	Chesapeake Appalachia	Chevron USA Inc to TH
10*15600	9-10-14	м	WILLIAM D MCCONNELL	CHESAPEAKE APPALACHIA LLC	1/8+	715	447	N/A	N/A	N/A	N/A	29/325	30/427	30/461	36/148
10*15735	9-10-15	N	JOSEPH MICHAEL BONENE	TH EXPLORATION LLC	1/8+	928	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*15735	9-10-7		JOSEPH MICHAEL BONENE	TH EXPLORATION LLC	1/8+	928	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*15735	9-10-8	P	JOSEPH MICHAEL BONENE	TH EXPLORATION LLC	1/8+	928	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		•	In a second seco				1 222	1 .,,,,	1	,			1	<u> </u>	·

RECEIVED
Office of Oil and Gas

FEB 1 9 2021

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*15504	9-10-6	Q	JAMES MASON ET AL	AB RESOURCES	1/8+	692	461	N/A	N/A	N/A	N/A	AB Resources LLC & NPAR LLC to Chief Exploration & Development LLC & Radler 2000 LP: 24/490	Chief Exploration & Development LLC, Chief O&G LLC, Radler 2000 LP & Enerplus Resources Corp to Chevron USA Inc: 25/1	Chevron USA Inc:	Chevron USA Inc to TH Exploration LLC: 36/148
10*15504	9-10-5	R	JAMES MASON ET AL	AB RESOURCES	1/8+	692	461	N/A	N/A	N/A	N/A	AB Resources LLC & NPAR LLC to Chief Exploration & Development LLC & Radler 2000 LP: 24/490	Chief Exploration & Development LLC, Chief O&G LLC, Radler 2000 LP & Enerplus Resources Corp to Chevron USA Inc: 25/1	AB Resources LLC to Chevron USA Inc: 756/397	Chevron USA Inc to TH Exploration LLC: 36/148
10*15510	9-6-15	s	ELAINE PHELPS ET VIR	TRIENERGY HOLDINGS, LLC	1/8+	718	326	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	
10*15511	9-6-15		DAVID E CROW	TRIENERGY HOLDINGS, LLC	1/8+	718	376	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 25/463	NPAR LLC to Chevron USA Inc: 26/269	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	
10*15512	9-6-15	S	FRANCES COFFEY	TRIENERGY HOLDINGS, LLC	1/8+	718	378	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15513	9-6-15	S	KAY KEYES	TRIENERGY HOLDINGS, LLC	1/8+	718	330	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15514	9-6-15	S	L PAUL CROW	TRIENERGY HOLDINGS, LLC	1/8+	718	336	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15515	9-6-15	s	DESIRE L CROW	TRIENERGY HOLDINGS, LLC	1/8+	718	334	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	
10*15516	9-6-15	S	ROSE MARIE KIELCZEWSKI	TRIENERGY HOLDINGS, LLC	1/8+	718	354	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	
10*15517	9-6-15	s	DIANNE GELLNER & GARY GELLNER	TRIENERGY HOLDINGS, LLC	1/8+	718	345	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Exploration LLC: 36/148
10*15518	9-6-15	Р	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	TH EXPLORATION LLC	1/8+	718	347	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*15519	9-6-15	S	JOHN CROW	TRIENERGY HOLDINGS, LLC	1/8+	726	580	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 25/449	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	

RECEIVED
Office of Oil and Gas

FEB 1 9 2021

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
												TriEnergy Holdings	NPAR LLC to Chevron	TriEnergy Holdings LLC & TriEnergy Inc to Chevron	
10*15520	9-6-15	s	TIMOTHY CROW	TRIENERGY HOLDINGS, LLC	1/8+	726	582	N/A	N/A	N/A	N/A	25/449	USA Inc: 756/332	USA Inc: 28/356	36/148
10*47051.123.1	9-6-15	S	LLOYD G BAKER	TH EXPLORATION LLC	1/8+	865	389	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
												Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc:	Chesapeake Appalachia LLC to Chevron USA Inc:	Statoil USA Onshore Properties Inc to Chevron	Chevron USA Inc to TH
10*19116	9-6-4	_T	ROBERT LEE CARNEY AND BONNIE ANNE CARNEY	CHESAPEAKE APPALACHIA LLC	1/8+	682	255	N/A	N/A	N/A	N/A	22/671	30/392	USA Inc: 30/404	40/127
10*18839	9-6-3	ΰ	MARGARET DARLENE DUTTON	TH EXPLORATION LLC	1/8+	937	607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18840	9-6-3	Ü	JAY HAROLD DUTTON AND JANICE L DUTTON	TH EXPLORATION LLC	1/8+	937	609	N/A N/A		N/A N/A	N/A	N/A	N/A	N/A	N/A
10*18841	9-6-3								N/A		N/A N/A	N/A	N/A N/A	N/A	N/A
10*18841	9-6-3	U	THEODORE FRANCIS DUTTON AND PHYLLIS JEAN DUTTON	TH EXPLORATION LLC	1/8+	937	612	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH
				 	l										Exploration LLC:
10*19000	9-6-3	U	KENNETH M MCCARDLE AND DELORES MCCARDLE	CHEVRON USA INC	1/8+	789	154	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
						1									Chevron USA Inc to TH
															Exploration LLC:
10*19013	9-6-3	U	SUSAN JANE MULLEN AND RICHARD S MULLEN	CHEVRON USA INC	1/8+	789	147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
								ļ							Chevron USA Inc to TH
		ł		}	1										Exploration LLC:
10*19014	9-6-3	U	JAMES F CARMICHAEL	CHEVRON USA INC	1/8+	793	366	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
						ŀ	l								Chevron USA Inc to TH
							ļ								Exploration LLC:
10*19015	9-6-3	υ	SUSAN J CARMICHAEL	CHEVRON USA INC	1/8+	793	433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
															Chevron USA Inc to TH
															Exploration LLC:
10*19016	9-6-3	U	JOHN LINDSEY DERROW	CHEVRON USA INC	1/8+	795	351	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
															Chevron USA Inc to TH
															Exploration LLC:
10*19019	9-6-3	Uυ	CATHERINE HUMMEL	CHEVRON USA INC	1/8+	797	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
															Chevron USA Inc to TH
		1					ŀ								Exploration LLC:
10*19020	9-6-3	lυ	DURWOOD WRIGHT BY CATHERINE HUMMEL AIF	CHEVRON USA INC	1/8+	796	191	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
								14	.,,	.,,,,					Chevron USA Inc to TH
															Exploration LLC:
10*19022	9-6-3	υ	BETTY L ELMER	CHEVRON USA INC	1/8+	803	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
		<u> </u>			2,01			1,77	.,,,,	.,,,,	.,,,,	141.	.,,,,		Chevron USA Inc to TH
Ì														1	Exploration LLC:
10*19023	9-6-3	lυ	DARLENE K ALBORN	CHEVRON USA INC	1/8+	803	573	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
25 25025			DARLENE RALBORY	CHEVION OSA INC	1,0.	003	3,3	19/5	19/4	14/2	- IVA	19/5	14/7	147.	Chevron USA Inc to TH
1		1		1											Exploration LLC:
10*19024	9-6-3	lυ	MARLENE F WAGMILLER	CHEVRON USA INC	1/8+	803	567	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
		⊢ٽ	THE WASHINGTON TO AN ADDRESS OF THE PARTY OF	CHECKOTO OSA INC	1,0,	- 303	307	17/2	19/0	19/0	197	11/2	19/5	190	Chevron USA Inc to TH
					I							1			Exploration LLC:
10*19025	9-6-3	lυ	ELLEN G KIRKBRIDE	CHEVRON USA INC	1/8+	804	615	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/127
10 13023	3-0-3	-	LELLIN O MINNORIDE	CHEVRON USA INC	1/0+	004	012	IN/A	IN/A	IN/A	IN/A	IN/A	19/4	19/5	Chevron USA Inc to TH
1			}		1										Exploration LLC:
10*19028	9-6-3	ں ا	ELMED DEAN EVANS	CHEVRONUSAING	1/0.	905	_	N/4	N/A	N/A	N./A	B1/A	N/A	N/A	40/127
10 13020	3-0-3	- '	ELMER DEAN EVANS	CHEVRON USA INC	1/8+	805	8	N/A	N/A	N/A	N/A	N/A	IN/A	N/A	Chevron USA Inc to TH
		1			1										Exploration LLC:
10*10063	0.63	l	RREADA MOOD	CHEMBONIA CA INC	4.0.		454					1 1/4	1 2/4	N/A	40/127
10*19062	9-6-3	U	BRENDA WOOD	CHEVRON USA INC	1/8+	818	151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	40/12/

RECEIVED
Office of Oil and Gas

FEB 1 9 2021

Operator's Well No. Knob Creek N - 3HM

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment							
															Chevron USA Inc to TH
															Exploration LLC:
10*19064	9-6-3	U	JODY KORN	CHEVRON USA INC	1/8+	818	137	N/A	40/127						
															Chevron USA Inc to TH
															Exploration LLC:
10*19194	9-6-3	U	CHARLES D DERROW II	CHEVRON USA INC	1/8+	781	230	N/A	40/127						
					i		ł								Chevron USA Inc to TH
															Exploration LLC:
10*19195	9-6-3	υ	DAVID DERROW	CHEVRON USA INC	1/8+	781	237	N/A	40/127						
															Chevron USA Inc to TH
					1		į								Exploration LLC:
10*19196	9-6-3	U	JAMES W DERROW	CHEVRON USA INC	1/8+	781	223	N/A	40/127						
							1								Chevron USA Inc to TH
							1								Exploration LLC:
10*19197	9-6-3	υ	THOMAS J DERROW	CHEVRON USA INC	1/8+	781	244	N/A	40/127						
															Chevron USA Inc to TH
							1								Exploration LLC:
10*19198	9-6-3	U	SAMUEL W DERROW	CHEVRON USA INC	1/8+	781	251	N/A	40/127						
							İ								Chevron USA Inc to TH
															Exploration LLC:
10*19199	9-6-3	υ	CHRISTIE S MITCHELL	CHEVRON USA INC	1/8+	781	277	N/A	40/127						
											·				Chevron USA Inc to TH
İ							1								Exploration LLC:
10*19200	9-6-3	lυ	KATHLEEN A KELLEY	CHEVRON USA INC	1/8+	781	300	N/A	40/127						
10 15255		<u> </u>	TWITTELETY / TREEE	SHEVILOR SOLUTION				1,7/	1,7,1	1,7,1		.,,,,,			Chevron USA Inc to TH
				1			1		İ						Exploration LLC:
10*19208	9-6-3	υ	MICHAEL E DERROW JR	CHEVRON USA INC	1/8+	786	146	N/A	40/127						
10 10100	1 300		WHO WELL BERNOW SK	0.1211011 00.11110		1.00	1.0	147.	747.	.,,	1,4.1				Chevron USA Inc to TH
		l				l	,					ł		1	Exploration LLC:
10*19215	9-6-3	lυ	JOSEPH R DERROW	CHEVRON USA INC	1/8+	786	350	N/A	40/127						
10 15215	1 303	- <u> </u>	JOSEI II N DEINOW	CHEVIOU COATIVO		1 /55	330	N/A	.,,,,	147.		.,,,,	.,,		Chevron USA Inc to TH
															Exploration LLC:
10*19262	9-6-3	υ	BARBARA L MCGAHA	CHEVRON USA INC	1/8+	787	400	N/A	40/127						
10 19202	3-0-3		DARBARA E WEGATIA	CHEVROIT USA INC	1/0+	/8/	400	19/6	19/5	197	14/2	147.	.,,		Chevron USA Inc to TH
													ļ		Exploration LLC:
10*19263	9-6-3	U	WILLIAM POLEN	CHEVRON USA INC	1/8+	788	224	N/A	40/127						
10 19203	3-0-3	-	WILLIAM FOLEN	CHEVRON OSA INC	1/6+	/88	224	19/5	19/2	19/0	17/5	11/75	14/1	.,,,,	Chevron USA Inc to TH
				i			1	1							Exploration LLC:
10*19264	9-6-3	υ	HOWARD E SPEAR AIF PATTIE S MADRID	CHEVRON USA INC	1/8+	788	219	N/A	40/127						
10 19204	9-0-3		HOWARD E SPEAR AIF PATTIE S MADRID	CHEVRON OSA INC	1/6+	/00	219	IN/A	N/A	IN/A	IN/A	19/5	19/6	197	Chevron USA Inc to TH
								1							Exploration LLC:
10*1020	0.00	١.,	DETECT CTARKEY	CHEVEONITICATING	1,0.	700	204	N/A	N/A	N1/A	N/A	N/A	N/A	N/A	40/127
10*19265	9-6-3	U	BETTY L STARKEY	CHEVRON USA INC	1/8+	788	384	N/A	N/A	N/A	IN/A	IN/A	IN/A	11//	Chevron USA Inc to TH
						Ĭ									Exploration LLC:
40*40000		١	DALE ADODULGALODEDNY	CHEMBON HEA INC	4.0.	704		11/4	N/A		11/4	N/A	N/A	N/A	40/127
10*19266	9-6-3	U	DALE ADORIN SALSBERRY	CHEVRON USA INC	1/8+	791	66	N/A	N/A	N/A	N/A	N/A	IN/A	IN/A	Chevron USA Inc to TH
ľ					1	1									Exploration LLC:
	1	۱			1			1	1		1	1	N/A	l N/A	40/127
10*19267	9-6-3	U	REGINA KAY ST GEORGE AND FRED ST GEOGRE	CHEVRON USA INC	1/8+	788	379	N/A	Chevron USA Inc to TH						
l															Exploration LLC:
													N./A		40/127
10*19268	9-6-3	U	ANITA STANLEY	CHEVRON USA INC	1/8+	790	99	N/A	HO/ 127						

RECEIVED
Office of Oil and Gas

FEB 1 9 2021

Operator's Well No. Knob Creek N - 3HM

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ook/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
															Chevron USA Inc to TH
					İ						1				Exploration LLC:
10*19269	9-6-3	U	LINDA D MAYO RONALD A MAYO	CHEVRON USA INC	1/8+	789	501	N/A	40/127						
															Chevron USA Inc to TH
10*19270	0.53	١	FORDEST STANKEY DOD A STANKEY				1								Exploration LLC:
10-19270	9-6-3	U	FORREST STARKEY DODA STARKEY	CHEVRON USA INC	1/8+	790	110	N/A	40/127 Chevron USA Inc to TH						
	1														Exploration LLC:
10*19271	9-6-3	U	JANICE M HIXSON AND HARRY C HIXSON	CHEVRON USA INC	1/8+	790	208	N/A	40/127						
	+	1	SALTICE IN THIS ON AND HARRY CHINSON	CHEVICIA COA INC	1/6+	730	200	19/4	IN/A	IN/A	19/4	19/6	19/2	1975	Chevron USA Inc to TH
		l													Exploration LLC:
10*19272	9-6-3	U	JOHN M SALSBERRY	CHEVRON USA INC	1/8+	792	218	N/A	40/127						
															Chevron USA Inc to TH
	1												Į		Exploration LLC:
10*19273	9-6-3	U	JODIE R MORRIS JOHN MORRIS	CHEVRON USA INC	1/8+	790	188	N/A	40/127						
															Chevron USA Inc to TH
				ł								ļ			Exploration LLC:
10*19274	9-6-3	U	ETHEL E STARKEY	CHEVRON USA INC	1/8+	790	203	N/A	40/127						
															Chevron USA Inc to TH Exploration LLC:
10*19275	9-6-3	U	TRACY M SALSBERRY	CHEVRON USA INC	1/8+	791	165		N/A	N/A	N/A	N/A	N/A	N/A	40/127
10 132/3	3-0-3	-	TRACT W SALSBERAT	CHEVRON USA INC	1/8+	/91	103	N/A	N/A	N/A	N/A	I N/A	N/A	IN/A	Chevron USA Inc to TH
				İ											Exploration LLC:
10*19276	9-6-3	U	SANDRA LEE KNAPSKI JOHN KNAPSKI	CHEVRON USA INC	1/8+	790	193	N/A	40/127						
						750	133	14/5	197	19/4	14/2	14//	147.	.,,,,	Chevron USA Inc to TH
										1					Exploration LLC:
10*19277	9-6-3	U	GINGER L SALSBERRY	CHEVRON USA INC	1/8+	790	198	N/A	40/127						
															Chevron USA Inc to TH
		ĺ		1	İ				ł						Exploration LLC:
10*19278	9-6-3	U	DELLA J COVERDALE TOM COVERDALE	CHEVRON USA INC	1/8+	790	213	N/A	40/127						
															Chevron USA Inc to TH
10*19279	9-6-3	υ	CALLENE M PETERSON	CHEVRON USA INC	4.0				l			,.		N/A	Exploration LLC: 40/127
10 192/9	3-0-3		CALLENE IVI PETERSON	CHEVRON USA INC	1/8+	789	342	N/A	Chevron USA Inc to TH						
	1 1	•		i											Exploration LLC:
10*19280	9-6-3	υ	BRENT LEE STARKEY	CHEVRON USA INC	1/8+	789	357	N/A	40/127						
				CHETROIT GOVING	1,5	703	337	19/4	19/7	19/6	14/5	19/5	1974	.,,,,,	Chevron USA Inc to TH
	1 1														Exploration LLC:
10*19281	9-6-3	U	MAUREEN C COOPER	CHEVRON USA INC	1/8+	790	218	N/A	40/127						
															Chevron USA Inc to TH
					- 1										Exploration LLC:
10*19282	9-6-3	U	KENNETH D MCMECHEN	CHEVRON USA INC	1/8+	789	337	N/A	40/127						
	1 1														Chevron USA Inc to TH
10*19283		١.,	CADALLEIGI EV DODERT IV GIGI EV				1						l		Exploration LLC:
10 13203	9-6-3	U	SARAH SISLEY ROBERT W SISLEY	CHEVRON USA INC	1/8+	789	332	N/A	40/127 Chevron USA Inc to TH						
										1			1		Exploration LLC:
10*19284	9-6-3	U	REXENA A CUNNINGHAM	CHEVRON USA INC	1/8+	790	157	N/A	40/127						
		Ŭ	Production of the state of the	CHEVILON OSA INC	1,07	730	13/	19/4	IN/M	19/74	IN/A	19/5	13/2	19/5	Chevron USA Inc to TH
										1			1		Exploration LLC:
10*19285	9-6-3	U	CARALOTTA J GIBSON	CHEVRON USA INC	1/8+	792	251	N/A	40/127						
					1 -4					1 1911					

RECEIVED Office of Oil and Gas

FEB 1 9 2021

Operator's Well No. Knob Creek N - 3HM

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ok/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
															Chevron USA Inc to TH
															Exploration LLC:
10*19286	9-6-3	U	ELAINE M KENNER JACK KENNER	CHEVRON USA INC	1/8+	792	256	N/A	40/127 Chevron USA Inc to TH						
					ŀ										Exploration LLC:
10*19287	9-6-3	U	DEBBIE MAE MOORE	CHEVRON USA INC	1/8+	792	234	N/A	40/127						
10-19287	9-6-3		DEBBIE MAE MOORE	CHEVRON USA INC	1/8+	/92	234	N/A	N/A	N/A	N/A	N/A	IN/A	IN/A	Chevron USA Inc to TH
					ļ										Exploration LLC:
10*19288	9-6-3	lυ	REGINA F HAUGHT DANIEL HAUGHT	CHEVRON USA INC	1/8+	792	174	N/A	40/127						
	1		The state of the s	GHEVILOR GOVERNO	1,0			14//	1471	14/7	147.		, ,, .		Chevron USA Inc to TH
	ŀ				ļ	l					1				Exploration LLC:
10*19289	9-6-3	U	RUIEANN HORSFALL	CHEVRON USA INC	1/8+	793	447	N/A	40/127						
															Chevron USA Inc to TH
															Exploration LLC:
10*19290	9-6-3	U	RICHARD CECIL LUTISHIA CECIL	CHEVRON USA INC	1/8+	795	399	N/A	40/127						
															Chevron USA Inc to TH
															Exploration LLC:
10*19291	9-6-3	U	JO ANN HYNDMAN ROBERT HYNDMAN	CHEVRON USA INC	1/8+	800	203	N/A	40/127						
1															Chevron USA Inc to TH
															Exploration LLC:
10*19292	9-6-3	U	CHARLES M STARKEY TRUST THELMA B STARKEY, SOLE TRUSTEE	CHEVRON USA INC	1/8+	800	223	N/A	40/127						
10*21007	9-6-3	U	SANDRA EILEEN WORKMAN RUSH AND JAMES EARL RUSH	TH EXPLORATION LLC	1/8+	951	638	N/A	N/A N/A						
10*21008	9-6-3	U	DALE EDWARD WORKMAN	TH EXPLORATION LLC	1/8+	949	343	N/A	N/A N/A						
10*21581 10*21582	9-6-3 9-6-3	U	DAVID CARMICHAEL	TH EXPLORATION LLC	1/8+	957	402	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A N/A	N/A N/A
10*22327	9-6-3	U	GARY CARMICHAEL NANCY WHITLATCH	TH EXPLORATION LLC TH EXPLORATION LLC	1/8+	957 962	393 551	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A	N/A N/A
10 22327	9-0-3		INANCT WHITEATCH	TH EXPLORATION LLC	1/8+	962	221	N/A	N/A	N/A	IN/A	IN/A	IN/A	IV/A	1975
10*23915	9-6-3	l 11	GENERAL RECEIVER OF MARSHALL COUNTY ATTN: BERNIE TWIGG	TH EVELOPATION LLC	1/8+	1011	523	N/A							
10*24718	9-6-3	Ü	DOUGLAS G DERROW	TH EXPLORATION LLC	1/8+	1027	598	N/A							
10*24786	9-6-3	U	HADEN W DERROW	TH EXPLORATION LLC	1/8+	1027	600	N/A							
10*24788	9-6-3	Ü	MICHAEL W DERROW	TH EXPLORATION LLC	1/8+	1027	596	N/A							
10*24959	9-6-3	U	CODY S DERROW	TH EXPLORATION LLC	1/8+	1028	626	N/A							
10*24960	9-6-3	U	CHARLES S DERROW	TH EXPLORATION LLC	1/8+	1028	624	N/A							
10*25289	9-6-3	U	SHERRY KAY RISHER	TH EXPLORATION LLC	1/8+	1030	152	N/A							
10*25499	9-6-3	J	THOMAS G DERROW AND DOROTHY DERROW	TH EXPLORATION LLC	1/8+	1033	134	N/A							
															Chevron USA Inc to TH
														l	Exploration II LLC & TH
10*26369	9-6-3	U	WILLIAM N ROUPE AND VIRGINIA A ROUPE	CHEVRON USA INC	1/8+	1026	35	N/A	Exploration LLC: 43/95						
						1									Chevron USA Inc to TH
											i				Exploration II LLC & TH
10*26370	9-6-3	υ	MINICENT PATRELLO AND ANAANDA PATRELLO	CHEMBON HEA INC	1/0:	1000	,,	21/2	1 41/4	N/A	N./A	N/A	N/A	N/A	Exploration LLC: 43/95
10 203/0	9-6-3	U	VINCENT PATRELLO AND AMANDA PATRELLO	CHEVRON USA INC	1/8+	1026	37	N/A	N/A	N/A	N/A	N/A	N/A	IN/A	Exploration LLC. 43/33
															Chevron USA Inc to TH
		1												1	Exploration II LLC & TH
10*26371	9-6-3	U	WILLIAM B ROUPE AND KATHERINE A ROUPE	CHEVRON USA INC	1/8+	1026	39	N/A	Exploration LLC: 43/95						
	1 222		Prince and a second former and a second seco	C. L. HON OUR INC	1_1/05	1020	1 33	17/5	1 19/5	1 195	1 19/6	1 190	1		

RECEIVED
Office of Oil and Gas

FEB 1 9 2021

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Bo	ook/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*26372	9-6-3	U	CHRISTOPHER A ROUPE AND KARI S ROUPE	CHEVRON USA INC	1/0	1002	33	5/4	N/A	N/A		N/A	N/A	N/A	Chevron USA Inc to T Exploration II LLC & T Exploration LLC: 43/9
10*26491	9-6-3	U	MATTHEW ROY FURBEE		1/8+	1026		N/A	N/A	N/A	N/A				N/A
10*26740	9-6-3	U		TH EXPLORATION LLC	1/8+	1037	438	N/A	N/A N/A						
10*27159	9-6-3	U	*TIMOTHY SEAN GRIFFIN	TH EXPLORATION LLC	1/8+	1038	190	N/A	N/A N/A						
10*28148	9-6-3	U	*CHRISTOPHER FURBEE AND KATIE FURBEE MADALYN DERROW	TH EXPLORATION LLC	1/8+	1047	438	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A
10*28333	9-6-3	U	DOUGLAS S SINGER	TH EXPLORATION LLC	1/8+	1067	320	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A
10*28470	9-6-3	U	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC TH EXPLORATION LLC	1/8+	1070	430	N/A	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A
10*28566	9-6-3	U	JODY L JAMES	TH EXPLORATION LLC	1/8+	1072	157	N/A	N/A	N/A	N/A	N/A	N/A N/A	N/A	N/A
10 26360	3-0-3	U	JODY LJAIVIES	TH EXPLORATION LLC	1/8+	1072	42	N/A	IN/A						
10*28632	9-6-3	U	RANDY D ROBINSON	CHEVRON USA INC	1/8+	976	256	N/A	Chevron USA Inc to The Exploration LLC: 45/9						
10*28635	9-6-3	U	JEFFREY D ROBINSON EY UX	CHEVRON USA INC	1/8+	976	253	N/A	Chevron USA Inc to Ti Exploration LLC: 45/9						
									1. 1. 20	/ 1. / 1					Chevron USA Inc to Ti
10*28636	9-6-3	U	MARK A ROBINSON	CHEVRON USA INC	1/8+	986	517	N/A	Exploration LLC: 45/9						
10*28940	9-6-3	U	*BRANDY R LOVERA	TH EXPLORATION LLC	1/8+	1078	24	N/A	N/A						
10*28942	9-6-3	U	*BRIAN L FURBEE	TH EXPLORATION LLC	1/8+	1078	21	N/A	N/A						
10*28944	9-6-3	Ų	*GREGORY D FURBEE	TH EXPLORATION LLC	1/8+	1078	18	N/A	N/A						
10*28946	9-6-3	U	*EDMOND J FURBEE	TH EXPLORATION LLC	1/8+	1078	27	N/A	N/A						
10*31354	9-6-3	Ü	THOMAS MICHAEL GRIFFFIN	STONE ENERGY CORPORATION	1/8+	870	128	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQ Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/2
10*31358	9-6-3	U	THE DERROW FAMILY IRREVOCABLE TRUST	STONE ENERGY CORPORATION	1/8+	874	500	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQ Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/2
10*31375	9-6-3	U	SONDRA S. MENENDEZ	STONE ENERGY CORPORATION	1/8+	864	565	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQ Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/2
10*31376	9-6-3	U	JOSEPH MARK MENENDEZ	STONE ENERGY CORPORATION	1/8+	868	440	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQ Production Company: 38/75	T EQT Production Company to TH Exploration LLC: 48/
10*31407	9-6-3	U	RUTH FLINNER	STONE ENERGY CORPORATION	1/8+	870	132	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQ Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/
10*31408	9-6-3	- U	CATHERINE E. GRIFFIN	STONE ENERGY CORPORATION	1/8+	889	13	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQ Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/
10*31409	9-6-3	U	VICKY JO GRIFFIN AKA VICKIE JO GRIFFIN *Co-tenancy utilization — At least 7 mineral owners.	STONE ENERGY CORPORATION	1/8+	870	134	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EO Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/

RECEIVED Office of Oil and Gas

FEB 1 9 2021

ASSIGNMENT AND CONVEYANCE

This Assignment and Conveyance (this "Assignment") is from STATOIL USA ONSHORE PROPERTIES INC., a Delaware corporation ("Assignor"), to TH Exploration, LLC, a Texas limited liability company ("Assignee"), and is executed on December 18, 2017 (the "Effective Date"). Assignor and Assignee may be referred to herein collectively as the "Parties," or individually as a "Party." Capitalized terms used herein but not otherwise defined herein (including in Section 3.7) shall have the meanings given such terms in that certain Acreage Trade Agreement between the Assignor and the Assignee dated August 24, 2017 (the "Acreage Trade Agreement").

ARTICLE 1 ASSIGNMENT OF ASSETS

Section 1.1 <u>Assignment.</u> For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby GRANTS, BARGAINS, ASSIGNS, CONVEYS AND TRANSFERS unto Assignee all of Assignor's right, title and interest in and to (i) the oil and gas leases described in more detail on <u>Exhibit A</u> attached hereto (the "Leases") INSOFAR AND ONLY INSOFAR as they cover those lands described on <u>Exhibit A</u> (the "Leasehold Rights") and (ii) any surface use agreements that relate to such Leasehold Rights (collectively with the Leasehold Rights, the "Conveyed Assets").

TO HAVE AND TO HOLD the Conveyed Assets, together with all and singular the rights, privileges, contracts and appurtenances, in any way appertaining or belonging thereto, unto Assignee, its successors and assigns, forever, subject, to the terms and conditions of this Assignment.

Section 1.2 Assignment Subject to Acreage Trade Agreement. This Assignment is made in accordance with and is subject to the terms, covenants and conditions contained in that certain Acreage Trade Agreement. In the event of a conflict between the provisions of the Acreage Trade Agreement and this Assignment, the provisions of the Acreage Trade Agreement shall control. The execution and delivery of this Assignment by Assignor, and the execution and acceptance of this Assignment by Assignee, shall not operate to release or impair any surviving rights or obligations of either Party with respect to the other under the Acreage Trade Agreement.

ARTICLE 2 SPECIAL WARRANTY OF TITLE AND DISCLAIMERS

Section 2.1 Special Warranty of Title. Assignor hereby agrees to warrant and defend Defensible Title to the Leases unto Assignee, its successors and assigns, against every Person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Assignor or any of its Affiliates, but not otherwise.

Section 2.2 Disclaimers of Warranties and Representations.

(a) EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN <u>SECTION</u>
<u>VI</u> OF THE ACREAGE TRADE AGREEMENT OR THIS ASSIGNMENT, ASSIGNOR
MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR

Office of Oil and Gas
FEB 1 9 2021

Office of CIVED, OCC.

FEB 1 C

1

ASSIGNMENT AND BILL OF SALE

This ASSIGNMENT AND BILL OF SALE (this "Assignment") dated as of December 1, 2020 (the "Execution Date"), is made by and between EQT PRODUCTION COMPANY, a Pennsylvania corporation, with an address at 625 Liberty Avenue, Suite 1700, Pittsburgh, Pennsylvania 15222 ("EQT"), and TH EXPLORATION, LLC, a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, Texas 76107 ("TE") pursuant to the terms of that certain Acreage Trade Agreement by and among EQT, TH and TH Exploration II, LLC ("TH II"), dated July 8, 2020 (the "Agreement"). EQT and TH may be referred to herein together as the "Parties", and each individually as a "Party".

RECITALS

WHEREAS, BQT desires to transfer, convey and assign to TH certain of EQT's oil and gas leasehold interests located in Marshall County, West Virginia set forth on Exhibit A attached hereto and incorporated herein ("EQT Leases") in accordance with this Assignment and the Agreement; and

WHEREAS, TH desires to receive from EQT, all of EQT's right, title and interest in and to the EQT Leases in accordance with this Assignment and the Agreement.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein and in the Agreement, the benefits to be derived by each Party hereunder and under the Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I DEFINED TERMS

1.1 Definitions. Capitalized terms used herein and not otherwise defined throughout this Assignment shall have the meanings given such terms in the Agreement.

ARTICLE II ASSIGNMENT OF ASSETS

- 2.1 Assignment. Subject to the terms and conditions of this Assignment and the Agreement, EQT does hereby assign, convey and transfer to TH all of the right, title and interest of EQT in and to the following (collectively for purposes of this Assignment, the "EQT Assets"):
- (a) Subject to the conveyance of the Wells Assets from EQT to TH II as described in the Agreement, the EQT Leases and appurtenances thereto (including rights of access and to install facilities), all Hydrocarbons within, produced from, derived from, or sold from the EQT Leases (and all proceeds related thereto), on and after the Valuation Date, and all Surface Contracts including but not limited to those set forth on Exhibit B attached hereto and incorporated herein (the "EQT Surface Contracts") related to the EQT Leases and such Hydrocarbons; and
- (b) Copies of deeds, files and all other ownership information directly related to the acquisition, operations and maintenance of the EQT Leases, lease files for the EQT Leases

RECEIVED Office of Oil and Gas

WV Department of Environmental Protection

ş

STATE OF WEST VIRGINIA
COUNTY OF MARSHALL

JULY PESC MARSHALL Country 10:45:50 FM Instrument No 1404876 Late Recorded 05/26/2016 Document Types ASI Pages Recorded 20 Epoly-Page 75-148 Recording Fee 420.00 Additional 88:00

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 17th day of May, 2016 (the "Effective Date"), by and between CHEVRON U.S.A. INC. (hereinafter "Assignor") and TH EXPLORATION, LLC (hereinafter "Assignee") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated May 2, 2016 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", and as depicted in Exhibits "A-1" and "A-2", attached hereto and made a part hereof (hereinafter the "Leases"); and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor accepts and reserves from this Assignment the Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. Special Warranty. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered (other than Permitted Encumbrances) its interest in the Conveyed Interests since the time that Assignor obtained its interests in the Leases. Assignor does covenant, promise and agree, to and with the Assignee, its respective successors and assigns, to forever specially warrant and defend the title to the Leases or portions thereof included under this Assignment, unto the Assignee and its respective successors and assigns, against the lawful claims of Assignor, and all persons claiming, or to claim, the same or any part thereof, by, through or under Assignor.

Office of Oil and Gas

STATE OF WEST VIRGINIA
COUNTY OF MARSHALL

Marshall County
Jan Pest, Clerk
Instrument 1428356
08/16/2017 @ 12:08:49 PM
ASSIGNMENTS
Book 40 @ Page 127
Pages Recorded 25
Recording Cost \$ 33.00

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this day of AUGUST, 2017 (the "Effective Date"), by and between CHEVRON U.S.A. INC. (hereinafter "Assignor") and TH EXPLORATION, LLC (hereinafter "Assignee") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated the 1st day of August, 2017 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", attached hereto and made a part hereof (hereinafter the "Leases"), less and except certain overriding royalty interests and exclusions; and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below, subject to certain overriding royalty interests and less and except certain exclusions.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

- 1. <u>Assignment.</u> Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor excepts and reserves from this Assignment the following:
 - A. The Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia, and
 - B. As to each of the Leases and all oil, gas, and associated hydrocarbons produced, saved and sold thereunder, an overriding royalty interest equal to the difference between 82% and the

WV Department of

STATE OF WEST VIRGINIA

02 60 60

COUNTY OF MARSHALL

ASSIGNMENT AND BILL OF SALE

This ASSIGNMENT AND BILL OF SALE (this "Assignment") dated as of Y 2019 (the "Signing Date"), but effective from and after 7:00 a.m., Eastern Standard Time on February 1, 2019 (the "Effective Date"), is made by Chevron U.S.A. Inc., a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 ("Chevron" or "Assignor") to TH Exploration II, LLC and TH Exploration, LLC, Texas limited liability companies, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (collectively "Assignee") and is accepted by Assignee upon the following terms and conditions.

RECITALS

- A. Assignor desires to sell, convey, transfer, assign and deliver to Assignee Assignor's Crawford 1 well and certain related assets, including certain leasehold interests, located in Marshall County, West Virginia.
- .B. Through an Acreage Trade Agreement to be executed contemporaneously with this Assignment, Assignor desires to transfer, convey and assign to Assignee certain of Assignor's oil and gas leasehold interests located in Marshall County, West Virginia in exchange for the transfer, conveyance and assignment to Assignor by Assignee certain of Assignee's oil and gas leasehold interests located in Marshall County, West Virginia.
- C. In consideration of the mutual promises set out in this Assignment, including execution of the Acreage Trade Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree to be bound by the terms of this Assignment.

1. **DEFINITIONS**

- 1.1 Definitions. As used in this Assignment, these words and expressions have the following meanings:
 - "Acreage Trade Agreement" means that certain Acreage Trade Agreement by and between Chevron U.S.A. Inc. and TH Exploration, LLC with an Effective Date of February 1, 2019 to be contemporaneously executed with this Assignment.
 - "Act" has the meaning given to such term in Section 9.1(C).
 - "Affiliate" means any legal entity which controls, is controlled by, or is under common control with, another legal entity. An entity is deemed to "control" another if it owns directly or indirectly at least fifty percent of either of the following: (A) the shares entitled to vote at a general election of directors of such

Office of Oil and Gas FEB 1 9 2021

Page 1 of 40

.1

DOK 0 0 4 5 PAGE 0 0 9 2

STATE OF WEST VIRGINIA

COUNTY OF MARSHALL 8

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this _, 2020 (the "Effective Date"), by and between day of February CHEVRON U.S.A. INC., a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 (hereinafter "Assignor") and TH EXPLORATION, LLC a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (hereinafter "Assignee")

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", attached hereto and made a part hereof (hereinafter the "Leases"), less and except certain exclusions; and

WHEREAS, this Assignment is meant to serve, in part, as a correction to certain prior assignments by and between the parties, as more specifically set forth on Exhibit A.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

- Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor excepts and reserves from this Assignment the following:
 - Any portion of the Leases set forth in the column entitled "Less and Except" on Exhibit A.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. Special Warranty. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered its interest in the Leases since the time that Assignor obtained its interests in the Leases. Assignor does covenant, promise and agree, to and with the Assignee, its respective successors and assigns, to forever specially warrant and defend the title to the Leases or portions thereof included under this Assignment, unto the Assignee and its respective successors and assigns, against the lawful claims of Assignor, and all persons claiming, or to claim, the same or any part thereof, by, through or under Assignor.

ASSIGNMENT AND BILL OF SALE

This ASSIGNMENT AND BILL OF SALE (this "Assignment") dated as of December 1, 2020 (the "Execution Date"), is made by and between EQT PRODUCTION COMPANY, a Pennsylvania corporation, with an address at 625 Liberty Avenue, Suite 1700, Pittsburgh, Pennsylvania 15222 ("EQT"), and TH EXPLORATION, LLC, a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, Texas 76107 ("TH") pursuant to the terms of that certain Acreage Trade Agreement by and among EQT, TH and TH Exploration II, LLC ("TH II"), dated July 8, 2020 (the "Agreement"). EQT and TH may be referred to herein together as the "Parties", and each individually as a "Party".

RECITALS

WHEREAS, EQT desires to transfer, convey and assign to TH certain of EQT's oil and gas leasehold interests located in Marshall County, West Virginia set forth on Exhibit A attached hereto and incorporated herein ("EQT Leases") in accordance with this Assignment and the Agreement; and

WHEREAS, TH desires to receive from EQT, all of EQT's right, title and interest in and to the EQT Leases in accordance with this Assignment and the Agreement.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein and in the Agreement, the benefits to be derived by each Party hereunder and under the Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I DEFINED TERMS

1.1 Definitions. Capitalized terms used herein and not otherwise defined throughout this Assignment shall have the meanings given such terms in the Agreement.

ARTICLE II ASSIGNMENT OF ASSETS

- 2.1 Assignment. Subject to the terms and conditions of this Assignment and the Agreement, EQT does hereby assign, convey and transfer to TH all of the right, title and interest of EQT in and to the following (collectively for purposes of this Assignment, the "EQT Assets"):
- (a) Subject to the conveyance of the Wells Assets from EQT to TH II as described in the Agreement, the EQT Leases and appurtenances thereto (including rights of access and to install facilities), all Hydrocarbons within, produced from, derived from, or sold from the EQT Leases (and all proceeds related thereto), on and after the Valuation Date, and all Surface Contracts including but not limited to those set forth on Exhibit B attached hereto and incorporated herein (the "EQT Surface Contracts") related to the EQT Leases and such Hydrocarbons; and
- (b) Copies of deeds, files and all other ownership information directly related to the acquisition, operations and maintenance of the EQT Leases, lease files for the EQT Leases

WV Department of Environmental Protection

Ş