

west virginia department of environmental protection

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

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

Thursday, March 26, 2020 WELL WORK PERMIT Horizontal 6A / New Drill

NORTHEAST NATURAL ENERGY LLC 707 VIRGINIA STREET EAST STE 1200 CHARLESTON, WV 25301

Re: Permit approval for CUMMINS 18H

47-061-01864-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless 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: CUMMINS 18H

Farm Name: JERRY L YOST ET AL

U.S. WELL NUMBER: 47-061-01864-00-00

Horizontal 6A New Drill Date Issued: 3/26/2020

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

- 1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number:	

PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

WW-6B (04/15)

API NO. 47				•			
OPERATO	R١	ΝEΙ	LN	01	8H		
Well Pad	Na	me	: Cı	ımmin	8		

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

1) Well Operator	: Northe	ast Natural	Energy 📙	494498281	Monongalia	Clay	Blacksville, WV
-				Operator ID	County	District	Quadrangle
2) Operator's We	ell Number	r: <u>18H</u>		Well Pad	Name: Cumn	nins	
3) Farm Name/S	urface Ow	ner: Jerry L	Yost et a	Public Road	d Access: CR	25/3 (Yank	(Hollow Rd.)
4) Elevation, cur	rent groun	d: <u>1360'</u>	Ele	evation, proposed p	oost-construction	on: 1358'	
5) Well Type ((a) Gas	X	_ Oil	Unde	rground Storag	ge	
(Other						
((b)If Gas	Shallow	X	Deep			
		Horizontal	X		Mar	. ا داد	a D as
6) Existing Pad:	Yes or No	No			TIJK	1/27/20	
7) Proposed Targ Marcellus; 8,07	-		ı(s), Antici	pated Thickness ar	nd Expected Pr	essure(s):	
8) Proposed Tota	ıl Vertical l	Depth: 8,07	70'				
9) Formation at 1	Γotal Verti	cal Depth:	Marcellus				
10) Proposed To	tal Measur	ed Depth:	17,290'√				
11) Proposed Ho	rizontal Le	eg Length:	8,216'				
12) Approximate	Fresh Wa	ter Strata De	pths:	50'; 1,250'			
13) Method to De	etermine F	resh Water I	Depths: Depths:	rillers Log from o	ffset wells		
14) Approximate	Saltwater	Depths: 1,	648'; 2,408	3'			
15) Approximate	Coal Sear	n Depths: 1	,248'			-	
16) Approximate	Depth to	Possible Voi	d (coal mi	ne, karst, other): <u></u>	NA		
17) Does Proposedirectly overlying				ns Yes	No	X	
(a) If Yes, prov	ide Mine I	nfo: Name	:				
-		Depth	ı :				
RECEIV	VED.	Seam	:				
RECEIN Office of Oil		Owne	r:				
FFR 1 1	2020						

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WW-6B (04/15)

API NO	47	·		
OPE	RATOR \	WELL N	O. 18H	
We	ll Pad Na	me: Cu	ımmins	

18)

CASING AND TUBING PROGRAM

ТҮРЕ	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	24"	New	NA	94.71	40'	40' 🗸	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,330'	1,300' 🗸	CTS
Coal							•
Intermediate	9-5/8"	New	J-55	40	2,488'	2,458' 🗸	CTS
Production	5-1/2"	New	P-110	20	17,290'	17,260' 🗸	3,991 Cu Ft
Tubing	2-7/8"	New	N-80	6.5			NA
Liners							

MJK 1/11/2020

ТҮРЕ	Size (in)	Wellbore Diameter (in)	<u>Wall</u> <u>Thickness</u> <u>(in)</u>	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	<u>Cement</u> <u>Yield</u> (cu. ft./k)
Conductor	24"	30"	.375	415		4,500 pst grout	NA
Fresh Water	13-3/8"	17 1/2"	.38"	2,760	2,000 /	Type 1	1.18
Coal							
Intermediate	9-5/8"	12 1/4"	.395"	3,950	3,000 ′	Type 1	1.18
Production	5-1/2"	8-3/4"	.361"	12,530	9,700 ~	50:50 Poz	1.21
Tubing	2-7/8"	NA	.271"	10,570	3,600 ✓	NA	NA ·
Liners							

PACKERS

Kind:		
Sizes:		
Depths Set:		

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FEB 1 1 2020

WW-6B (10/14)

API NO. 47
OPERATOR WELL NO. 18H
Well Pad Name: Cummins

19	Describe 1	proposed	well work	: includin	g the drillin	g and i	nlugging	back of a	ny pilot hole:
1,	Describe	proposed	WOII WOII	, 1110144111	5 uic ai iiiii	5 ana 1	P14661116	ouck of a	ny phot hole.

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 7,885' TVD/MD. The well will then be horizontally drilled on synthetic based mud from the KOP to approximately 8,070' TVD/17,290' MD along a 325° azimuth

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

Multi-stage / high-rate slickwater fracture treatment using various size sands as proppant. First stage will be initiated via pressurization against a burst disc ran in the production casing string or perforated with coiled tubing. Subsequent stages will be perforated with pumped down guns ran on wireline. Individual stages will be isolated with composite frac plugs. Maximum pump rate during any stage will be 110 BPM with a maximum allowable surface pressure of 9,500 PSI. Composite bridge plugs will be set at the end of the last stage to isolate the treated formation.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 40.42 ac
- 22) Area to be disturbed for well pad only, less access road (acres): 11.99 ac
- 23) Describe centralizer placement for each casing string:

Surface and intermediate casing strings will have bow spring centralizers placed every third joint (~120') from the shoe joint to surface. Production casing will have rigid body centralizers placed at a minimum of every fourth joint (~160') from TD to surface.

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

Surface string cement will be a Type 1 + Max 3% bwoc Calcium Chloride Fresh Water blend. Intermediate string cement will be a Type 1 Cement + Max 3% bwoc Calcium Chloride + Fresh Water. Production string cement will be (50:50) Poz (Fly Ash):Type I Cement with a gas migration additive.

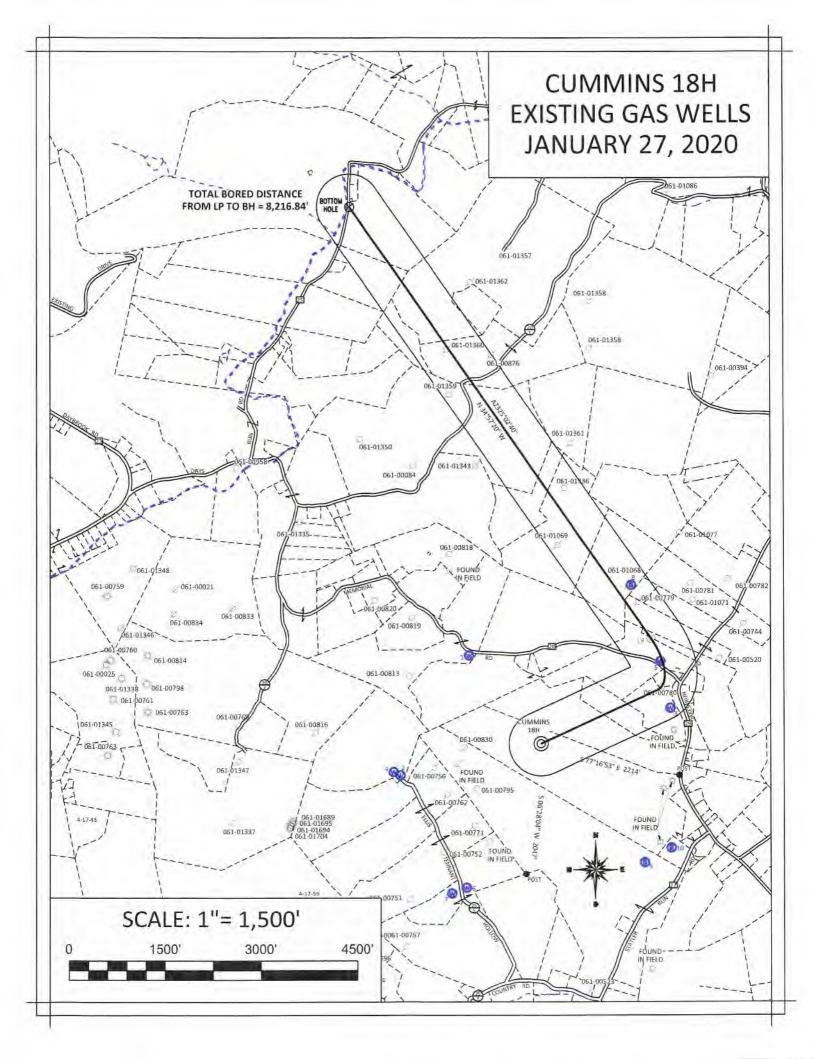
25) Proposed borehole conditioning procedures:

Surface string will use a 25.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Intermediate string will use a 25.0 bbls Gel Pill + LCM + 25 lbs Cello Flake + 20 lbs/bbl Bentonite @ 8.4 ppg & 10 bbls fresh water spacer prior to cement. Production string will use a 50.0 bbls SealBond 25 + 1 gal/bbl US-40 + 275 lbs/bbl Barite + 1 gal/bbl SS-2 Spacer @ 13.5 ppg prior to cement.

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*Note: Attach additional sheets as needed.

FEB 1 1 2020



NA O E Tananana		Operator	Latitude (NAD 83)	Longitude (NAD 83)	TMP	TVD	Comments
M & E Tennnant	M3-244	Consolidation Coal Co.	39.670567	-80.179783	4-10-77	NA	Plugged - 6/4/1992
Noumenon & Mark V Eddy	6B35	Noumenon Corp, a WV Corp	39.676980	-80.18588	4-10-72	790'	Plugged - 10/21/201
Consol Energy Inc	5B3	Noumenon Corp, a WV Corp	39.678857	-80.186021	4-10-70	98'	Plugged - 11/17/201
Consol Coal / Formerly Wm Hall	M3-291	Consolidation Coal Co.	39.678687	-80.183537	4-10-70	NA	Plugged - 8/2/1988
Ellen Marie Rose	7B4	Noumenon Corp, a WV Corp	39.672949	-80.179364	4-10-77	126'	Plugged - 11/9/2015
Marvin & Eileen Tennant	M3-243	Consolidation Coal Co.	39.668827	-80.175842	4-10-77.2	3030'	Plugged - 6/27/1992
Norma R Panrell	1	Noumenon Corp	39.668092	-80.175273	4-16-1	NA	Plugged - 7/19/201
	Consol Energy Inc onsol Coal / Formerly Wm Hall Ellen Marie Rose Warvin & Eileen Tennant	Consol Energy Inc 5B3 onsol Coal / Formerly Wm Hall M3-291 Ellen Marie Rose 7B4 Marvin & Eileen Tennant M3-243	Consol Energy Inc 5B3 Noumenon Corp, a WV Corp onsol Coal / Formerly Wm Hall M3-291 Consolidation Coal Co. Ellen Marie Rose 7B4 Noumenon Corp, a WV Corp Marvin & Eileen Tennant M3-243 Consolidation Coal Co.	Consol Energy Inc 5B3 Noumenon Corp, a WV Corp 39.678857 onsol Coal / Formerly Wm Hall M3-291 Consolidation Coal Co. 39.678687 Ellen Marie Rose 7B4 Noumenon Corp, a WV Corp 39.672949 Marvin & Eileen Tennant M3-243 Consolidation Coal Co. 39.668827	Consol Energy Inc 5B3 Noumenon Corp, a WV Corp 39.678857 -80.186021 onsol Coal / Formerly Wm Hall M3-291 Consolidation Coal Co. 39.678687 -80.183537 Ellen Marie Rose 7B4 Noumenon Corp, a WV Corp 39.672949 -80.179364 Marvin & Eileen Tennant M3-243 Consolidation Coal Co. 39.668827 -80.175842	Consol Energy Inc 5B3 Noumenon Corp, a WV Corp 39.678857 -80.186021 4-10-70 onsol Coal / Formerly Wm Hall M3-291 Consolidation Coal Co. 39.678687 -80.183537 4-10-70 Ellen Marie Rose 7B4 Noumenon Corp, a WV Corp 39.672949 -80.179364 4-10-77 Warvin & Eileen Tennant M3-243 Consolidation Coal Co. 39.668827 -80.175842 4-10-77.2	Consol Energy Inc 5B3 Noumenon Corp, a WV Corp 39.678857 -80.186021 4-10-70 98' onsol Coal / Formerly Wm Hall M3-291 Consolidation Coal Co. 39.678687 -80.183537 4-10-70 NA Ellen Marie Rose 7B4 Noumenon Corp, a WV Corp 39.672949 -80.179364 4-10-77 126' Marvin & Eileen Tennant M3-243 Consolidation Coal Co. 39.668827 -80.175842 4-10-77.2 3030'

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WV Department of Environmental Protection

NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV Field: Monongalia

Facility: Cummins Pad

Slot: Slot #18 Well: Cummins 18H

Scale 1 inch = 2500 -7500

Wellbore: Cummins 18H PWB Plot reference wellpath is Cummins 18H PWP Ex-00 Grid System: NADB3 / Lambert West Virginia SP, Northern Zone (4701), US feet North Reference: Grid north Reference wellpath measured depths are referenced to Patterson 334 (KB) Scale: True distance Patterson 334 (KR) to Mean Sea Level: 1383 feet Coordinates are in feet referenced to Sict Mean Sea Level to Ground level (At Slot Slot #18): -1358 feet Offset wellpath MDs are referenced to each path's default MD datum Created by: atergen on 2020-01-14; Database: WA_MPL_EASTERNUS_Defin

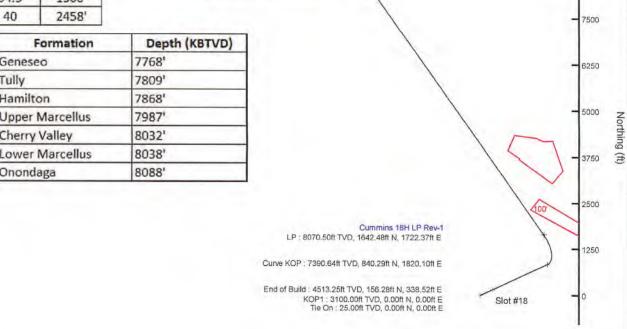


Easting (ft)

-2500

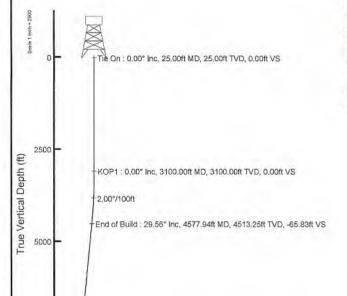
Туре	Hole Size	Casing Size	Grade		GL Depth (Csg)
Conductor	28"	24"	NA		40'
Surface	17-1/2"	13-3/8"	J-55	54.5	1300'
Intermediate	12-1/4"	9-5/8"	J-55	40	2458'

Formation	Depth (KBTVD)
Geneseo	7768'
Tully	7809'
Hamilton	7868'
Upper Marcellus	7987'
Cherry Valley	8032'
Lower Marcellus	8038'
Onondaga	8088'



Cummins 18H BHL Rev-1

BHL: 8070.50ft TVD, 8377.41ft N, 2985.65ft W



Curve KOP: 29.56° Inc, 7885.86ft MD, 7390.64ft TVD, -353.92ft VS

8.00°/100ft

7500

Cummins 18H LP Rev-1 LP: 90.00° Inc. 9073,35ft MD. 8070,50ft TVD: 359,59ft VS

2500

Cummins 18H BHL Rev-1

7500

BHL: 90.00° Inc, 17290.69ft MD, 8070.50ft TVD, 8576.93ft VS

5000 Vertical Section (ft) Azimuth 325.05° with reference 0.00 N, 0.00 E

Scale 1 inch = 2500

8750

API Number 47 -	
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Operator's Well No. Cummins 18H STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Northeast Natural Energy LLC	OP Code 494498281
Watershed (HUC 10) Dunkard Creek	Quadrangle Blacksville
Do you anticipate using more than 5,000 bbls of water to comp	elete the proposed well work? Yes V No
Will a pit be used? Yes No	
If so, please describe anticipated pit waste: N/A	
Will a synthetic liner be used in the pit? Yes	No If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
Underground Injection (UIC Perm	
Reuse (at API Number unknown at thi Off Site Disposal (Supply form WV	
Other (Explain	y-> for disposal focation)
Will closed loop system be used? If so, describe: Yes, Please	See Attachment "A"
Drilling medium anticipated for this well (vertical and horizon	tal)? Air, freshwater, oil based, etc. Vertical - Air/ Curve & Horizontal - Oil Based
-If oil based, what type? Synthetic, petroleum, etcS	synthetic Oil Based Mud
Additives to be used in drilling medium? Organophilic Clay Viscosifi	ers, Lime, Unsaturated Fatty Acids, CaCl, Barite, Emulsifiers, Mica LCM, Water Loss Agents
Drill cuttings disposal method? Leave in pit, landfill, removed	offsite, etc. Removed Offsite - Please See Attachment "A"
-If left in pit and plan to solidify what medium will be	e used? (cement, lime, sawdust)
-Landfill or offsite name/permit number? Please See	Attachment "A"
	Gas of any load of drill cuttings or associated waste rejected at any d within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West V provisions of the permit are enforceable by law. Violations of law or regulation can lead to enforcement action. I certify under penalty of law that I have personall application form and all attachments thereto and that, base	conditions of the GENERAL WATER POLLUTION PERMIT issued lirginia Department of Environmental Protection. I understand that the of any term or condition of the general permit and/or other applicable by examined and am familiar with the information submitted on this ed on my inquiry of those individuals immediately responsible for true, accurate, and complete. I am aware that there are significant bility of fine or imprisonment.
Company Official Signature Collins Media	RECEIVED Office of Oil and Gas
Company Official (Typed Name) Hollie Medley	FEB 1 1 2020
Company Official Title Regulatory Manager	(ED 11 2020
Subscribed and sworn before me this 27th day of Krusten Brooks My commission expires August 10, 202	Notary No

Proposed Revegetation Treatment: Acres Disturbe	ed 54.52 Prev	egetation pH
Lime 2 Tons/acre or to c	correct to pH 7	_
Fertilizer type 10-20-20		
Fertilizer amount 300	lbs/acre	
Mulch 2	Tons/acre	
	Seed Mixtures	
Temporary		Permanent
Seed Type lbs/acre Orchard Grass 46	Seed T Orchard Gra	
Red Clover 8	Red Clover	8
Perennial Rye 16	Perennial Ry	
Maps(s) of road, location, pit and proposed area for provided). If water from the pit will be land applied		plans including this info have bee
Attach: Maps(s) of road, location, pit and proposed area for provided). If water from the pit will be land applied acreage, of the land application area. Photocopied section of involved 7.5' topographic signal.	or land application (unless engineered d, include dimensions (L x W x D) or sheet.	plans including this info have bee
Attach: Maps(s) of road, location, pit and proposed area for provided). If water from the pit will be land applied acreage, of the land application area. Photocopied section of involved 7.5' topographic section.	or land application (unless engineered d, include dimensions (L x W x D) or sheet.	plans including this info have been the pit, and dimensions (L x W),
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Attachment A to WW-9

Northeast Natural Energy LLC ("NNE") plans to utilize a closed loop process for its drilling of the Cummins 18H well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

The Drill Cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal:

- Westmoreland Landfill (Tervita) Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) Bridgeport, WV (Permit # SWF 103298)
- Max Environmental Yukon, PA (PAD004835146 and 301071)
- Max Environmental Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) Export, PA (Permit # 101421)

NNE plans to reuse and recycle all flowback fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved to accept waste at time of disposal:

- Fairmont Brine Processing (WV NPDES #0116408)
- Green Hunter M. E. Elder 1 Disposal Well (Permit # 47-085-05151)
- Green Hunter Mason 1 Disposal Well (Permit #47-085-09721)
- Green Hunter Warren Disposal Well (Permit #34-121-2-3995)
- Green Hunter Travis Unit Disposal Well (Permit #34-121-2-4086)
- Viking Energy Corporation 20320 Disposal Well (Permit#47-039-02210)
- Ohio Oil Gathering Killbuck Disposal Well (Permit #34-075-24527)
- Ohio Oil Gathering Moran Disposal Well (Permit #34-089-24792)
- Ohio Oil Gathering Bells Run Disposal Well (Permit #34-167-29395)
- Ohio Oil Gathering Long Run Disposal Well (Permit #34-167-29658)
- Ohio Oil Gathering Newell Run Disposal Well (Permit #34-167-29685)
- Appalachian Oil Purchaser Greens Run Disposal Well (Permit #2D0732540)
- Appalachian Oil Purchaser BW#4 Disposal Well (Permit # 2D0732523)



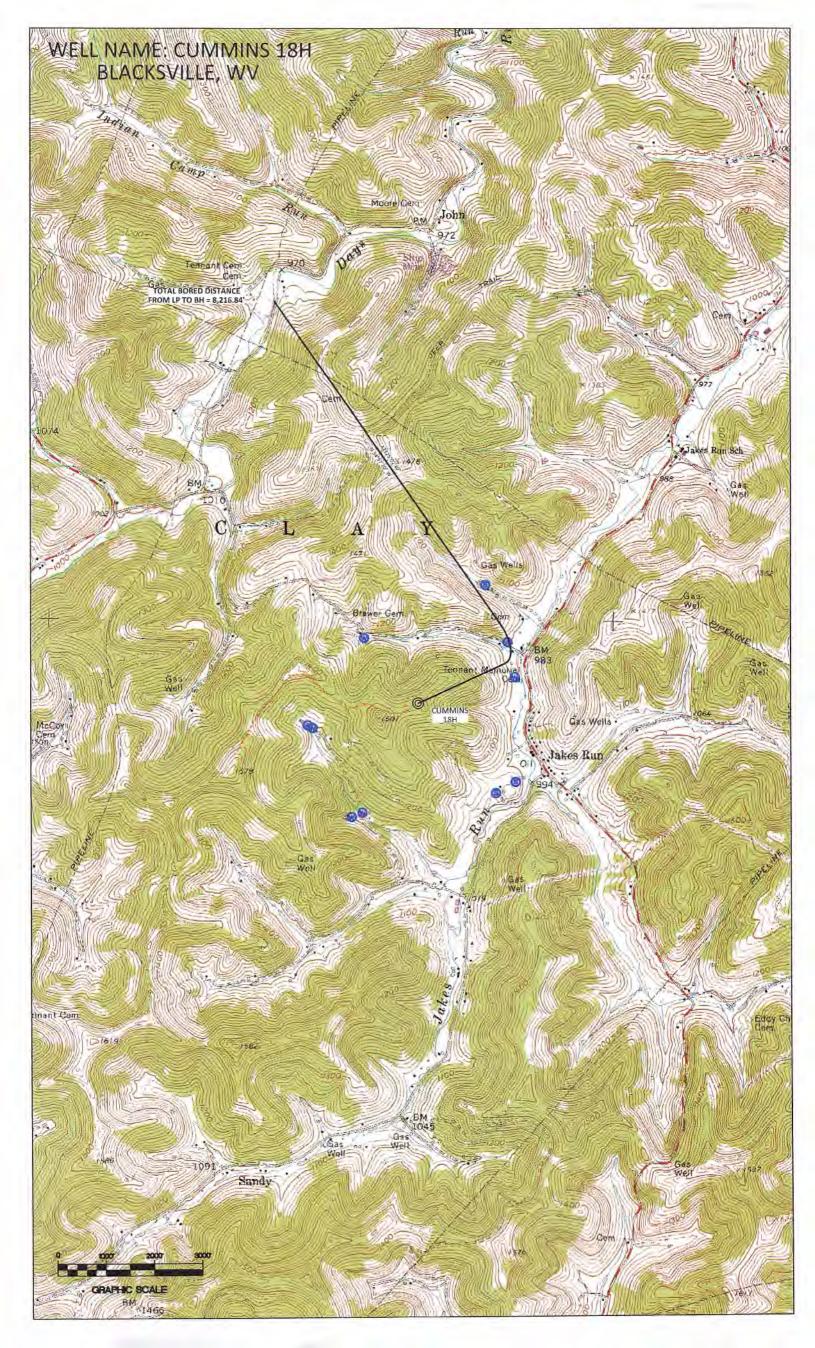


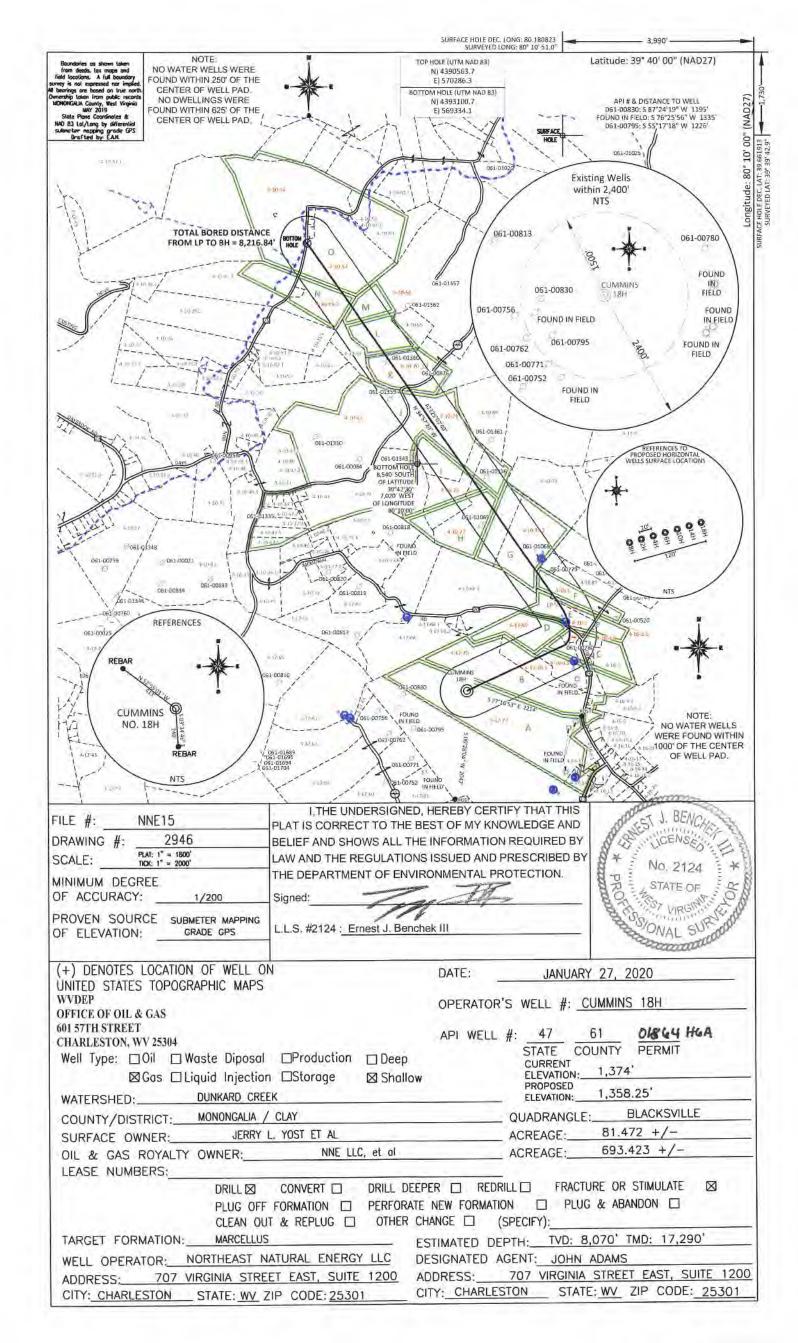
Cummins 18H SITE SAFETY PLAN Harry 2/2020

January 2020

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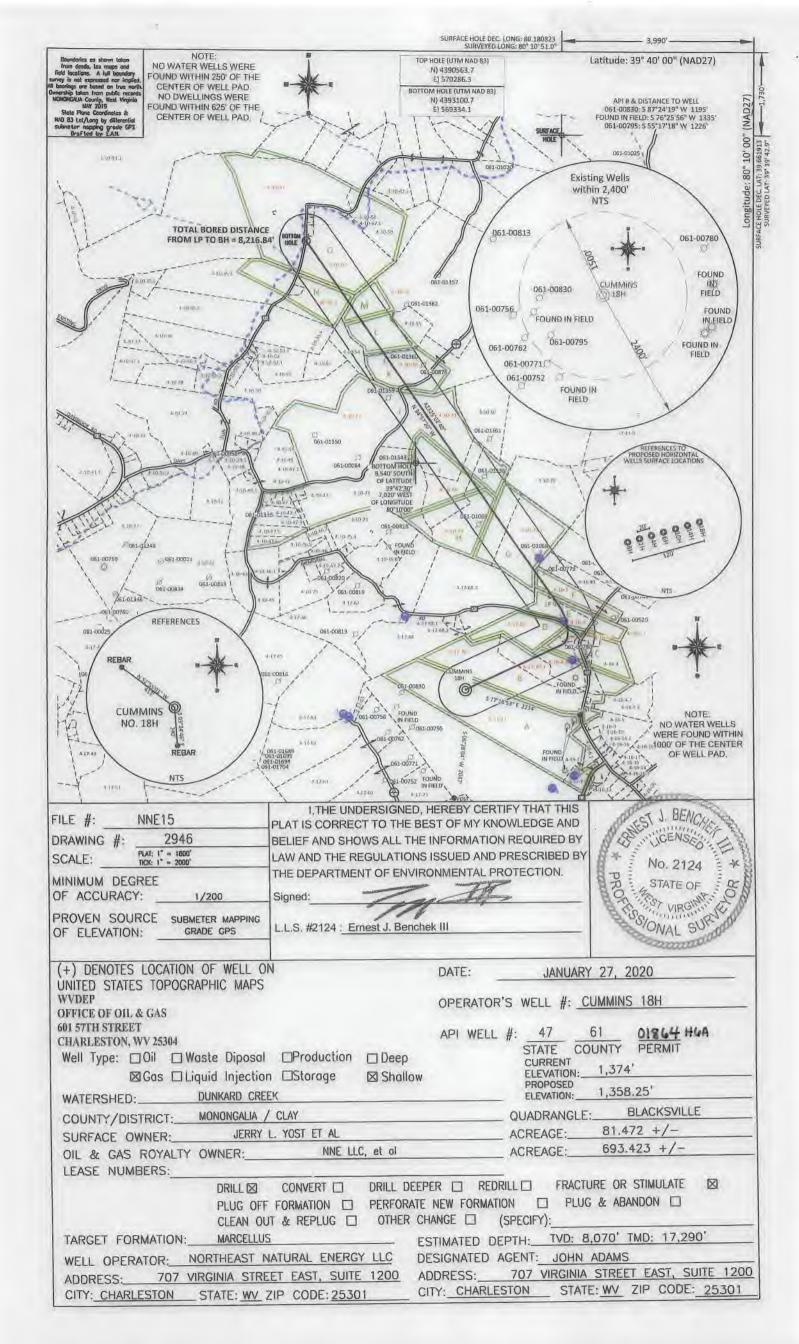


	PROPERTY OWNER INDEX
4-17-71	JERRY L. YOST ET AL
4-17-70	ROB AND JOYCE BENETT
4-17-70.1	STEVEN & HILDA JANE WIERSEMA
4-17-69	M RODGER & DONNA S OZBURN
4-16-4.3	J. TODD & CARLENE S. MOORE
4-16-4.4	ARTHUR D. & WILMA J. PARKER
4-16-2.1	TERRI R. PRITCHARD & DOYLE W. PETERS
4-16-2	RICHARD E. & BONNIE LEE WILSON
4-16-1	NORMA R. PANRELL
4-10-77.2	LISA & BRYAN RABER
4-10-77	ELLEN MARIE ROSE
4-10-76	LEONARD N. WILSON, RICHARD E. PANRELL SR. & NORMA R. PANRELL
4-10-71	NOUMENON CORPORATION & MARK V EDDY
4-10-72	NOUMENON CORPORATION & MARK V EDDY
4-10-56	CNX LAND LLC
4-10-57	FREDDIE W. TENNANT
4-10-35.2	RANDY PARRISH
4-10-70	CNX LAND LLC
4-10-34	MARY LOU VERBOSKY

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	LL TOL I	I dry F	N
A	WV-061-003499-001	1	WV-061-003693-002
В	WV-061-004599-060	J	WV-061-003693-002
C	WV-061-004584-102	K	WV-061-005332-001
D	WV-061-004367-015	L	WV-061-004875-020
E	WV-061-004367-015	M	WV-061-004875-020
F	WV-061-004758-006	N	WV-061-003886-005
G	WV-061-003278-005	0	WV-061-003278-005
Н	WV-061-003693-002		

FILE #:N	NEE14	DATE: JANUARY 27, 2020
DRAWING #: _	2946	OPERATOR'S WELL #: CUMMINS 18H
SCALE:	N/A	API WELL #: 47 61 01864 HGA STATE COUNTY PERMIT



	PROPERTY OWNER INDEX
4-17-71	JERRY L. YOST ET AL
4-17-70	ROB AND JOYCE BENETT
4-17-70.1	STEVEN & HILDA JANE WIERSEMA
4-17-69	M RODGER & DONNA S OZBURN
4-16-4.3	J. TODD & CARLENE S. MOORE
4-16-4.4	ARTHUR D. & WILMA J. PARKER
4-16-2.1	TERRI R. PRITCHARD & DOYLE W. PETERS
4-16-2	RICHARD E. & BONNIE LEE WILSON
4-16-1	NORMA R. PANRELL
4-10-77.2	LISA & BRYAN RABER
4-10-77	ELLEN MARIE ROSE
4-10-76	LEONARD N. WILSON, RICHARD E. PANRELL SR. & NORMA R. PANRELL
4-10-71	NOUMENON CORPORATION & MARK V EDDY
4-10-72	NOUMENON CORPORATION & MARK V EDDY
4-10-56	CNX LAND LLC
4-10-57	FREDDIE W. TENNANT
4-10-35.2	RANDY PARRISH
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LEASE INDEX A WV-061-003499-001 WV-061-003693-002 В J WV-061-003693-002 WV-061-004599-060 C K WV-061-005332-001 WV-061-004584-102 D WV-061-004367-015 WV-061-004875-020 E M WV-061-004875-020 WV-061-004367-015 F N WV-061-003886-005 WV-061-004758-006 G WV-061-003278-005 0 WV-061-003278-005 H WV-061-003693-002

FILE #: NEE14		DATE: JANUARY 27, 2020		
DRAWING #: _	2946	OPERATOR'S WELL #: CUMMINS 18H		
SCALE:	N/A	API WELL #: 47 61 OIS64 HGA PERMIT		

Operator's Well No.	Cummins 18H	

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	Ol.
Number	

Grantor, Lessor, etc.

Grantee, Lessee, etc.

Royalty

Book/Page

See Attached

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: Northeast Natural Energy LLC

By:

Hollie Medley

Its:

Regulatory Manager

RECEIVED
Office of Oil and Gas

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Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
Α	WV-061-004591-002	A. Keith Michael	Northeast Natural Energy LLC	12.5% or Greater	1594	66
	WV-061-004591-001	Jane Reynolds and Greg Michael	Northeast Natural Energy LLC	12.5% or Greater	1595	384
В	WV-061-004599-060	Diana Adamson	Northeast Natural Energy LLC	12.5% or Greater	1636	163
	WV-061-003674-017	Kenneth Arnett	Northeast Natural Energy LLC	12.5% or Greater	1562	199
	WV-061-003674-006	Robert Arnett	Northeast Natural Energy LLC	12.5% or Greater	1550	487
	WV-061-003674-020	W. Keith Arnett	Northeast Natural Energy LLC	12.5% or Greater	1564	673
	WV-061-004599-037	Dorothy R. Back	Northeast Natural Energy LLC	12.5% or Greater	1608	22
	WV-061-003708-006	Eileen Bane	Northeast Natural Energy LLC	12.5% or Greater	1541	303
	WV-061-003708-007	Ruby Brookover	Northeast Natural Energy LLC	12.5% or Greater	1545	774
	WV-061-003856-076	Connie Brooks	Northeast Natural Energy LLC	12.5% or Greater	1593	600
	WV-061-003674-007	Arleen L. Burke	Northeast Natural Energy LLC	12.5% or Greater	1550	491
	WV-061-004599-023	Dorothy Cheek	Northeast Natural Energy LLC	12.5% or Greater	1610	584
	WV-061-003856-078	Bonnie Chisholm	Northeast Natural Energy LLC	12.5% or Greater	1593	644
	WV-061-003856-075	Jackie Chisler	Northeast Natural Energy LLC	12.5% or Greater	1593	588
	WV-061-003856-066	Cindy Conner	Northeast Natural Energy LLC	12.5% or Greater	1589	141
	WV-061-003856-009	Frederick Conner	Northeast Natural Energy LLC	12.5% or Greater	1565	626
	WV-061-003856-072	James Conner	Northeast Natural Energy LLC	12.5% or Greater	1590	323
	WV-061-003856-008	John C. Conner	Northeast Natural Energy LLC	12.5% or Greater	1564	665
	WV-061-003856-036	Loretta Cook	Northeast Natural Energy LLC	12.5% or Greater	1579	803
	WV-061-003856-038	Paul Cook	Northeast Natural Energy LLC	12.5% or Greater	1579	815
	WV-061-003856-024	Cheryl Copeland	Northeast Natural Energy LLC	12.5% or Greater	1577	825
	WV-061-004599-017	Connie Copeland	Northeast Natural Energy LLC	12.5% or Greater	1606	750
	WV-061-004599-041	Leora Mae Sayers aka Leora Mae Corder	Northeast Natural Energy LLC	12.5% or Greater	1610	368
	WV-061-003856-044	Gloria Cox	Northeast Natural Energy LLC	12.5% or Greater	1580	182
	WV-061-003856-074	Patricia Crowley	Northeast Natural Energy LLC	12.5% or Greater	1593	668
	WV-061-004599-044	Virginia Dailey RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1614	791
	WV-061-003674-031	Terry Eberhart Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1563	206
	WV-061-003856-054	Marguerite Eddy	Northeast Natural Energy LLC	12.5% or Greater	1588	397
	WV-061-003708-013	Vada Eddy MAR 1 6 2020	Northeast Natural Energy LLC	12,5% or Greater	1565	556
	WV-061-003708-011	Vanessa Eddy	Northeast Natural Energy LLC	12.5% or Greater	1564	327
	WV-061-003843-001	Nellie M. Elder WV Department of	Northeast Natural Energy LLC	12.5% or Greater	1564	669
	WV-061-003843-002	Nancy Elkins Environmental Protection	Northeast Natural Energy LLC	12.5% or Greater	1564	374
	WV-061-004599-061	Jean Emory	Northeast Natural Energy LLC	12.5% or Greater	1636	739
	WV-061-004599-064	Tina Marie Tennant Flynn	Northeast Natural Energy LLC	12.5% or Greater	1643	820
	WV-061-004599-021	Sherry Irene Frazier	Northeast Natural Energy LLC	12.5% or Greater	1613	38
	WV-061-004599-065	Lori Frederick	Northeast Natural Energy LLC	12.5% or Greater	1646	45
	WV-061-003856-023	Carolyn Fullton	Northeast Natural Energy LLC	12.5% or Greater	1577	789
	WV-061-003856-011	Sandy Gatwood	Northeast Natural Energy LLC	12.5% or Greater	1557	435
	WV-061-003856-063	Tammy S. Gill	Northeast Natural Energy LLC	12.5% or Greater	1589	467
	WV-061-003856-034	Brenda Gribble	Northeast Natural Energy LLC	12.5% or Greater	1576	845

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-003856-079	Ellen J. Haines	Northeast Natural Energy LLC	12.5% or Greater	1594	600
	WV-061-004599-053	Earl Hall	Northeast Natural Energy LLC	12.5% or Greater	1619	409
	WV-061-003856-045	Richard Hamilton	Northeast Natural Energy LLC	12.5% or Greater	1580	185
	WV-061-003856-016	Curtis Harrell	Northeast Natural Energy LLC	12.5% or Greater	1562	373
	WV-061-004599-039	Billy C. Haught	Northeast Natural Energy LLC	12.5% or Greater	1619	403
	WV-061-003856-027	Michael Haught	Northeast Natural Energy LLC	12.5% or Greater	1576	831
	WV-061-003856-028	Alden Henderson	Northeast Natural Energy LLC	12.5% or Greater	1576	833
	WV-061-003674-010	Wilma Higgins	Northeast Natural Energy LLC	12.5% or Greater	1542	91
	WV-061-003856-084	Donna Huffman	Northeast Natural Energy LLC	12.5% or Greater	1607	58
	WV-061-004599-056	Helen Hull	Northeast Natural Energy LLC	12.5% or Greater	1642	57
	WV-061-004599-038	Larry D. Hull	Northeast Natural Energy LLC	12.5% or Greater	1614	788
	WV-061-003856-013	John W. Hunnell, aka, John Wayne Hunnell	Northeast Natural Energy LLC	12.5% or Greater	1565	307
	WV-061-003674-030	Dianne Hunnell	Northeast Natural Energy LLC	12.5% or Greater	1565	620
	WV-061-004599-043	Janet D. Jacobs	Northeast Natural Energy LLC	12.5% or Greater	1613	76
	WV-061-003856-004	Brian Joliff	Northeast Natural Energy LLC	12.5% or Greater	1565	612
	WV-061-003856-007	Michael Joliff	Northeast Natural Energy LLC	12.5% or Greater	1568	281
	WV-061-003856-048	Debra Kacsmar	Northeast Natural Energy LLC	12.5% or Greater	1582	64
	WV-061-003856-032	Thomas Kelley	Northeast Natural Energy LLC	12.5% or Greater	1576	841
	WV-061-004599-067	William Kelley	Northeast Natural Energy LLC	12.5% or Greater	135	462
	WV-061-004599-028	Barbara Kelley	Northeast Natural Energy LLC	12.5% or Greater	1607	270
	WV-061-003674-024	Helen Kennedy	Northeast Natural Energy LLC	12.5% or Greater	1557	365
	WV-061-004599-005	Kenneth Kiger	Northeast Natural Energy LLC	12.5% or Greater	1597	605
	WV-061-004599-004	William Kiger	Northeast Natural Energy LLC	12.5% or Greater	1597	603
	WV-061-004599-032	Judy King	Northeast Natural Energy LLC	12.5% or Greater	1607	624
	WV-061-003856-081	Donley Eugene Kisner	Northeast Natural Energy LLC	12.5% or Greater	1593	450
	WV-061-003856-082	Vickie Lynn Kisner	Northeast Natural Energy LLC	12.5% or Greater	1593	452
	WV-061-003856-056	David A. Lash	Northeast Natural Energy LLC	12.5% or Greater	1588	578
	WV-061-003856-059	Frank Lash, Jr.	Northeast Natural Energy LLC	12.5% or Greater	1588	601
	WV-061-003856-068	Joseph W. Lash	Northeast Natural Energy LLC	12.5% or Greater	1589	479
	WV-061-003856-057	Steven M. Lash	Northeast Natural Energy LLC	12.5% or Greater	1588	585
	WV-061-003856-067	Timothy S. Lash	Northeast Natural Energy LLC	12.5% or Greater	1589	476
	WV-061-004599-001	Ellen E. Tuttle Lemley	Northeast Natural Energy LLC	12.5% or Greater	1595	506
	WV-061-004599-029	Mary F. Lemley	Northeast Natural Energy LLC	12.5% or Greater	1607	618
	WV-061-003674-012	Mary Lou Lemley	Northeast Natural Energy LLC	12.5% or Greater	1550	473
	WV-061-004599-006	Linda Maran, aka, Linda Moran	Northeast Natural Energy LLC	12.5% or Greater	1602	37
	WV-061-003856-050	Gina Massie	Northeast Natural Energy LLC	12.5% or Greater	1586	18
	WV-061-003856-080	Gina Massie G M M M M M M M M M M M M M M M M M M	Northeast Natural Energy LLC	12.5% or Greater	1593	448
	WV-061-003856-026	Allen McCardle Mary R. McCullough	Northeast Natural Energy LLC	12.5% or Greater	1577	804
	WV-061-003674-004	Allen McCardle ntal D C C Mary R. McCullough P S A C	Northeast Natural Energy LLC	12.5% or Greater	1541	834
	WV-061-003856-077	Robert Michael	Northeast Natural Energy LLC	12.5% or Greater	1593	603
	WV-061-003856-041	Shirley Miller Q Q O	Northeast Natural Energy LLC	12.5% or Greater	1578	345
	WV-061-003856-006	Debra G. Moffa	Northeast Natural Energy LLC	12.5% or Greater	1566	21

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-003674-018	Ethan D. Moore	Northeast Natural Energy LLC	12.5% or Greater	1566	295
	WV-061-003708-015	Harold W. Moore	Northeast Natural Energy LLC	12.5% or Greater	1564	380
	WV-061-004599-022	Jeff Moore	Northeast Natural Energy LLC	12.5% or Greater	1615	779
	WV-061-003856-035	Pauline Moore	Northeast Natural Energy LLC	12.5% or Greater	1576	847
	WV-061-003856-014	Velda E. Moore, f/k/a Velda Elizabeth Tennant	Northeast Natural Energy LLC	12.5% or Greater	1565	676
	WV-061-004599-066	Joyce C. Murphy	Northeast Natural Energy LLC	12.5% or Greater	1648	241
	WV-061-003674-008	Nicholas Myers	Northeast Natural Energy LLC	12.5% or Greater	1550	584
	WV-061-003674-033	Deborah Netzel	Northeast Natural Energy LLC	12.5% or Greater	1568	146
	WV-061-004599-012	Glenn Nicholson	Northeast Natural Energy LLC	12.5% or Greater	1606	744
	WV-061-003708-002	Lola T. Owen	Northeast Natural Energy LLC	12.5% or Greater	1550	481
	WV-061-003674-028	Norma Panrell	Northeast Natural Energy LLC	12.5% or Greater	1564	717
	WV-061-004599-054	Lea Ann Papesh	Northeast Natural Energy LLC	12.5% or Greater	1627	325
	WV-061-003856-037	Alys Patterson	Northeast Natural Energy LLC	12.5% or Greater	1579	809
	WV-061-003856-039	Jare Patterson	Northeast Natural Energy LLC	12.5% or Greater	1579	818
	WV-061-003856-040	Ryan Patterson	Northeast Natural Energy LLC	12.5% or Greater	1579	824
	WV-061-003856-053	William Phares	Northeast Natural Energy LLC	12.5% or Greater	1588	394
	WV-061-004599-055	William Phares	Northeast Natural Energy LLC	12.5% or Greater	1634	384
	WV-061-003674-013	Donna Pifer	Northeast Natural Energy LLC	12.5% or Greater	1554	480
	WV-061-003856-052	Vivian Price	Northeast Natural Energy LLC	12.5% or Greater	1586	24
	WV-061-004599-046	Glenda Ramsey	Northeast Natural Energy LLC	12.5% or Greater	1613	82
	WV-061-003674-002	Kathy Jo Ramsey	Northeast Natural Energy LLC	12.5% or Greater	1554	482
	WV-061-003856-083	Bruce R. Rogers	Northeast Natural Energy LLC	12.5% or Greater	1607	56
	WV-061-003674-016	Ellen Rose	Northeast Natural Energy LLC	12.5% or Greater	1554	422
	WV-061-004599-007	Nancy Ross	Northeast Natural Energy LLC	12.5% or Greater	1605	280
	WV-061-003856-002	Anthony G. Sago	Northeast Natural Energy LLC	12.5% or Greater	1557	367
	WV-061-005119-001	April Sago aka April Phillips	Northeast Natural Energy LLC	12.5% or Greater	1618	781
	WV-061-003856-003	David K. Sago & Ramona J. Sago	Northeast Natural Energy LLC	12.5% or Greater	1564	378
	WV-061-003856-005	Jeffrey Sago	Northeast Natural Energy LLC	12.5% or Greater	1567	840
	WV-061-003856-001	Karen E. Sago	Northeast Natural Energy LLC	12.5% or Greater	1553	220
	WV-061-003856-049	Zeva Scripp	Northeast Natural Energy LLC	12.5% or Greater	1584	774
	WV-061-004599-010	Linda Shriver	Northeast Natural Energy LLC	12.5% or Greater	1605	299
	WV-061-003856-071	Cheryl Slampak	Northeast Natural Energy LLC	12.5% or Greater	1590	321
	WV-061-004599-002	Janice C. Slifko and Harry J. Slifko	Northeast Natural Energy LLC	12.5% or Greater	1597	599
	WV-061-004599-026	Judy T. Smith	Northeast Natural Energy LLC	12.5% or Greater	1607	266
	WV-061-004599-058	Kylie Spears	Northeast Natural Energy LLC	12.5% or Greater	1638	311
	WV-061-003708-010	Vaneta Statler RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1562	215
	WV-061-003674-014	Rebecca Steele Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1550	475
	WV-061-004599-009	Donna Stevenson	Northeast Natural Energy LLC	12.5% or Greater	1605	296
	WV-061-003856-020	Shirley Stieringer WAR 16 2020	Northeast Natural Energy LLC	12.5% or Greater	1575	439
	WV-061-003856-022	Deborah Stiles	Northeast Natural Energy LLC	12.5% or Greater	1577	783
	WV-061-003674-022	Gerald Stiles WV Department of	Northeast Natural Energy LLC	12.5% or Greater	1564	376
	WV-061-003674-023	Harold Stiles Environmental Protection	Northeast Natural Energy LLC	12.5% or Greater	1563	121

w w w	VV-061-003674-027 VV-061-004599-040 VV-061-003676-001	Janice Stiles Jason Sumner	Northeast Natural Energy LLC	12.5% or Greater	1566	27
w w w	VV-061-003676-001	Jason Sumner				
W W			Northeast Natural Energy LLC	12.5% or Greater	1610	366
W		Joseph Swiger	Northeast Natural Energy LLC	12.5% or Greater	1561	101
w	VV-061-004599-034	Jamy D. Teal	Northeast Natural Energy LLC	12.5% or Greater	1608	18
	VV-061-003856-065	Jody L. Temple	Northeast Natural Energy LLC	12.5% or Greater	1589	473
	VV-061-004599-057	Joshua Temple	Northeast Natural Energy LLC	12.5% or Greater	1638	308
l W	VV-061-003856-064	Kevin A. Temple	Northeast Natural Energy LLC	12.5% or Greater	1589	470
W	VV-061-004599-059	Megan Temple	Northeast Natural Energy LLC	12.5% or Greater	1638	316
W	VV-061-003708-004	Allen Temple	Northeast Natural Energy LLC	12.5% or Greater	1557	778
W	VV-061-004599-063	Billy Tennant	Northeast Natural Energy LLC	12.5% or Greater	1640	592
W	VV-061-003674-005	Brenda Tennant	Northeast Natural Energy LLC	12.5% or Greater	1541	842
W	VV-061-004599-014	Burl A. Tennant Jr.	Northeast Natural Energy LLC	12.5% or Greater	1604	236
W	VV-061-004599-019	Carl F. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1611	491
W	VV-061-003674-015	Cecil L. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1550	477
W	VV-061-004599-047	Clyde Tennant	Northeast Natural Energy LLC	12.5% or Greater	1613	85
W	VV-061-003708-003	Danny Tennant	Northeast Natural Energy LLC	12.5% or Greater	1550	483
W	VV-061-004599-068	Diana Tennant	Northeast Natural Energy LLC	12.5% or Greater	135	466
W	VV-061-003856-046	Donald Tennant	Northeast Natural Energy LLC	12.5% or Greater	1580	188
W	VV-061-004599-051	Francis Tennant	Northeast Natural Energy LLC	12.5% or Greater	1611	686
W	VV-061-003856-043	Freddie Tennant	Northeast Natural Energy LLC	12.5% or Greater	1580	179
w	VV-061-003674-037	Glenda Tennant	Northeast Natural Energy LLC	12.5% or Greater	1577	4
W	VV-061-003674-032	Helen Tennant	Northeast Natural Energy LLC	12.5% or Greater	1568	319
W	VV-061-004599-049	Herbert Tennant	Northeast Natural Energy LLC	12.5% or Greater	1613	91
W	VV-061-004599-045	James Tennant	Northeast Natural Energy LLC	12.5% or Greater	1613	79
W	VV-061-003856-025	Jean Tennant	Northeast Natural Energy LLC	12.5% or Greater	1577	798
		Jeff Tennant, a/k/a Jeffrey Joseph Tennant, a/k/a Jeffrey				
l w	VV-061-003856-033	Tennant	Northeast Natural Energy LLC	12.5% or Greater	1577	528
W	VV-061-004599-035	Jeffrey T. Tennnat	Northeast Natural Energy LLC	12.5% or Greater	1608	20
w	VV-061-004599-025	Jeffrey A. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1607	264
w	VV-061-003856-060	Joseph Tennant	Northeast Natural Energy LLC	12.5% or Greater	1588	610
w	VV-061-004599-016	Keith Tennant	Northeast Natural Energy LLC	12.5% or Greater	1606	747
W	VV-061-003708-001	Larry Tennant	Northeast Natural Energy LLC	12.5% or Greater	1550	479
w	VV-061-003856-015	Martha Tennant	Northeast Natural Energy LLC	12.5% or Greater	1557	752
W	VV-061-003856-031	Melody Tennant, a/k/a Melody Ann Tennant	Northeast Natural Energy LLC	12.5% or Greater	1576	839
w	VV-061-003856-012	Michael D. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1557	447
w	VV-061-004599-052	Michael Tennant	Northeast Natural Energy LLC	12.5% or Greater	1611	688
w	VV-061-003856-021	Nelson Tennant	Northeast Natural Energy LLC	12.5% or Greater	1576	277
w	VV-061-003856-055	Raph Tennant ≦: ≶ =	Northeast Natural Energy LLC	12.5% or Greater	1588	570
	VV-061-004599-008	Raph Tennant Virgo A Constant Randy Tennant	Northeast Natural Energy LLC	12.5% or Greater	1605	287
w	VV-061-003674-019	Richard Tennant	Northeast Natural Energy LLC	12.5% or Greater	1562	201
	VV-061-004599-050	Rita Tennant	Northeast Natural Energy LLC	12.5% or Greater	1610	836
lw	VV-061-003674-034	Robert N. Tennant Profession 2020 Gas	Northeast Natural Energy LLC	12.5% or Greater	1573	456

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-003856-047	Robert Tennant	Northeast Natural Energy LLC	12.5% or Greater	1582	61
	WV-061-004599-048	Robert L. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1613	88
	WV-061-003856-029	Scott Tennant, a/k/a Scott Douglas Tennant	Northeast Natural Energy LLC	12.5% or Greater	1577	530
	WV-061-003856-061	Sheila Tennant	Northeast Natural Energy LLC	12.5% or Greater	1588	646
	WV-061-004599-013	Shirley Tennant	Northeast Natural Energy LLC	12.5% or Greater	1604	234
	WV-061-003674-021	Sylvia D. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1564	715
	WV-061-003856-010	Virginia Tennant	Northeast Natural Energy LLC	12.5% or Greater	1557	439
	WV-061-003708-005	Wilbur Tennant	Northeast Natural Energy LLC	12.5% or Greater	1550	485
	WV-061-003674-009	William R. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1550	577
	WV-061-003674-029	Thomas Family	Northeast Natural Energy LLC	12.5% or Greater	1565	594
	WV-061-004599-024	Sandra Thomas	Northeast Natural Energy LLC	12.5% or Greater	1606	480
	WV-061-004599-033	Tenisha Elaine Sumner Truitt	Northeast Natural Energy LLC	12.5% or Greater	1608	16
	WV-061-003856-058	Albert Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1588	598
	WV-061-004599-020	Charles E. Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1610	574
	WV-061-004599-031	Charles D. Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1607	622
	WV-061-004599-018	Paul Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1604	371
	WV-061-004599-030	Ronald Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1607	620
	WV-061-004599-011	Sharon Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1606	696
	WV-061-004599-036	Sung Ja Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1613	836
	WV-061-004599-003	Joyce Valentine	Northeast Natural Energy LLC	12.5% or Greater	1597	601
	WV-061-003856-070	Mary J. Valenzia	Northeast Natural Energy LLC	12.5% or Greater	1589	561
	WV-061-003674-003	Charlene Walker	Northeast Natural Energy LLC	12.5% or Greater	1550	573
	WV-061-003674-001	Martha Walker	Northeast Natural Energy LLC	12.5% or Greater	1550	489
	WV-061-003856-019	Neva R. Walker	Northeast Natural Energy LLC	12.5% or Greater	1575	272
	WV-061-003856-018	Robert Walker	Northeast Natural Energy LLC	12.5% or Greater	1575	270
	WV-061-003856-017	Ruby G. Walker	Northeast Natural Energy LLC	12.5% or Greater	1575	268
	WV-061-004599-042	Robin Walls	Northeast Natural Energy LLC	12.5% or Greater	1610	370
	WV-061-004599-027	Sharon T. Walsh	Northeast Natural Energy LLC	12.5% or Greater	1607	268
	WV-061-003856-042	Russel D. Walters Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1578	156
	WV-061-003856-051	Dorothy Weaver	Northeast Natural Energy LLC	12.5% or Greater	1586	21
	WV-061-003856-069	Deborah White MAR 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1589	143
	WV-061-003856-073	Linda Wilfong	Northeast Natural Energy LLC	12.5% or Greater	1590	329
	WV-061-003674-011	Barbara Wilson WV Department of	Northeast Natural Energy LLC	12.5% or Greater	1542	96
	WV-061-003708-008	Bertha Wilson	Northeast Natural Energy LLC	12.5% or Greater	1550	525
	WV-061-003708-009	Leonard Wilson	Northeast Natural Energy LLC	12.5% or Greater	1552	424
	WV-061-004599-062	Kimberly Woodham, trustee of The David Henderson Trust	Northeast Natural Energy LLC	12.5% or Greater	1639	811
	WV-061-003856-062	Floyd W. Wright, aka Floyd William Wright	Northeast Natural Energy LLC	12.5% or Greater	1589	253
	WV-061-003674-035	Mary A. Wright	Northeast Natural Energy LLC	12.5% or Greater	1574	526
	WV-061-003708-014	Jarrod Yost	Northeast Natural Energy LLC	12.5% or Greater	1556	471
	WV-061-003674-036	Jason G. Yost	Northeast Natural Energy LLC	12.5% or Greater	1574	524
	WV-061-003674-025		Northeast Natural Energy LLC	12.5% or Greater	1557	451
	WV-061-003708-012		Northeast Natural Energy LLC	12.5% or Greater	1564	323

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
С	WV-061-004591-002	A. Keith Michael	Northeast Natural Energy LLC	12.5% or Greater	1594	66
	WV-061-004584-102	Alden Henderson	Northeast Natural Energy LLC	12.5% or Greater	1605	124
	WV-061-004584-133	Anthony G. Sago	Northeast Natural Energy LLC	12.5% or Greater	1626	76
	WV-061-005119-001	April Sago aka April Phillips 0 2 5 0	Northeast Natural Energy LLC	12.5% or Greater	1618	781
	WV-061-004584-008	Arleen L. Burke	Northeast Natural Energy LLC	12.5% or Greater	1594	100
	WV-061-004585-132	Barbara J. Wells	Northeast Natural Energy LLC	12.5% or Greater	1640	470
	WV-061-004599-028	Barbara Lee Tennant Kelly	Northeast Natural Energy LLC	12.5% or Greater	1607	270
	WV-061-004585-003	Barry D. Yost	Northeast Natural Energy LLC	12.5% or Greater	1593	657
	WV-061-004585-068	Bessie Louise Preston Hillberry	Northeast Natural Energy LLC	12.5% or Greater	1607	111
	WV-061-004584-034	Brenda Hursh Gribble	Northeast Natural Energy LLC	12.5% or Greater	1595	492
9 = 0	WV-061-004585-038	Brian E. Davis, aka, Brian Edward Davis and Julie B. Davis	Northeast Natural Energy LLC	12.5% or Greater	1600	683
	WV-061-004584-089	Brian L. Jolliff, aka Brian L. Joliff & Debbie Jolliff	Northeast Natural Energy LLC	12.5% or Greater	1604	189
	WV-061-004599-014	Burl A. Tennant Jr.	Northeast Natural Energy LLC	12.5% or Greater	1604	236
	WV-061-004585-075	Carolyn S. Smouse Atkins	Northeast Natural Energy LLC	12.5% or Greater	1607	608
	WV-061-004585-061	Carolyn Sue Straight	Northeast Natural Energy LLC	12.5% or Greater	1605	138
	WV-061-004585-039	Carrie M. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1600	685
	WV-061-004584-048	Cecil L. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1596	833
	WV-061-004585-107	Celestine Benitha Rothfus	Northeast Natural Energy LLC	12.5% or Greater	1623	23
	WV-061-004584-076	Charlene K. Walker	Northeast Natural Energy LLC	12.5% or Greater	1599	128
	WV-061-004585-138	Charlene Reichart	Northeast Natural Energy LLC	12.5% or Greater	1640	590
	WV-061-004585-046	Charles Bradley Davis	Northeast Natural Energy LLC	12.5% or Greater	1602	248
	WV-061-004599-031	Charles Douglas Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1607	622
	WV-061-004585-133	Charles Thomas Hillberry Jr.	Northeast Natural Energy LLC	12.5% or Greater	1643	55
	WV-061-004585-001	Charlotte Ann Cayavec, aka, Charlotte A. Cayavec	Northeast Natural Energy LLC	12.5% or Greater	1593	515
	WV-061-004585-120	Cherryl J. Tope and Kenneth L. Tope	Northeast Natural Energy LLC	12.5% or Greater	1631	410
	WV-061-003856-071	Cheryl Slampak	Northeast Natural Energy LLC	12.5% or Greater	1590	321
	WV-061-004585-036	Christina Stitchick	Northeast Natural Energy LLC	12.5% or Greater	1600	283
	WV-061-004585-150	Christopher Robinson	Northeast Natural Energy LLC	12.5% or Greater	1678	309
	WV-061-003856-066	Cindy Conner	Northeast Natural Energy LLC	12.5% or Greater	1589	141
	WV-061-004585-144	Cindy Lau Wilson	Northeast Natural Energy LLC	12.5% or Greater	1648	347
	WV-061-004585-124	Connie Burch, interest of Clifford W. Jarrett	Northeast Natural Energy LLC	12.5% or Greater	1637	837
	WV-061-004585-023	Dale Lynn Moore	Northeast Natural Energy LLC	12.5% or Greater	1597	126
	WV-061-004585-157	Daniel C. Robinson, interest of Margaret Robinson	Northeast Natural Energy LLC	12.5% or Greater	1683	645
	WV-061-004585-017	Danny J. Yost	Northeast Natural Energy LLC	12.5% or Greater	1596	843
	WV-061-004585-025	Danny Keith Moore	Northeast Natural Energy LLC	12.5% or Greater	1597	130
	WV-061-003856-003	David K. Sago & Ramona J. Sago	Northeast Natural Energy LLC	12.5% or Greater	1564	378
	WV-061-004585-024	David Wayne Moore	Northeast Natural Energy LLC	12.5% or Greater	1597	128
	WV-061-004585-149	Dayna L. Blade, a/k/a Dayna L. Robinson, interest of Margaret Robinson	Northeast Natural Energy LLC	12.5% or Greater	1678	357
	WV-061-004585-069	Deborah Kay Hillberry Lucente	Northeast Natural Energy LLC	12.5% or Greater	1607	113
	WV-061-003856-069	Deborah L. White	Northeast Natural Energy LLC	12.5% or Greater	1589	143

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-004585-102	Deborah Lynn Rahn	Northeast Natural Energy LLC	12.5% or Greater	1622	555
	WV-061-004584-144	Debra G. Moffa	Northeast Natural Energy LLC	12.5% or Greater	1636	161
	WV-061-004585-067	Deland Steven Hamilton	Northeast Natural Energy LLC	12.5% or Greater	1605	512
_	WV-061-004585-065	Denzil Carroll Hamilton	Northeast Natural Energy LLC	12.5% or Greater	1605	510
	WV-061-004599-060	Diana Adamson	Northeast Natural Energy LLC	12.5% or Greater	1636	163
•	WV-061-004585-081	Diana D. Aikens, aka, Diana Musgrave	Northeast Natural Energy LLC	12.5% or Greater	1611	680
	WV-061-004585-018	Diana F. Fulps and Gerald W. Fulps	Northeast Natural Energy LLC	12.5% or Greater	1596	845
	WV-061-004599-068	Diana Sue Tennant	Northeast Natural Energy LLC	12.5% or Greater	135	466
	WV-061-004585-029	Diane Lynn Long	Northeast Natural Energy LLC	12.5% or Greater	1598	423
	WV-061-004585-0158	Donald C. Robinson	Northeast Natural Energy LLC	12.5% or Greater	1687	200
	WV-061-004584-020	Donley Eugene Kisner	Northeast Natural Energy LLC	12.5% or Greater	1595	81
	WV-061-004584-047	Donna Irene Pifer	Northeast Natural Energy LLC	12.5% or Greater	1596	839
	WV-061-004585-071	Donna Jo Hillberry Hall	Northeast Natural Energy LLC	12.5% or Greater	1607	117
	WV-061-004584-108	Donna L. Huffman	Northeast Natural Energy LLC	12.5% or Greater	1607	107
	WV-061-004585-095	Donna Lee Keaton	Northeast Natural Energy LLC	12.5% or Greater	1618	21
	WV-061-004585-028	Donny Lee Moore	Northeast Natural Energy LLC	12.5% or Greater	1598	421
	WV-061-004585-010	Doris L. Yost, aka, Doris Lorraine Yost	Northeast Natural Energy LLC	12.5% or Greater	1595	83
	WV-061-004599-037	Dorothy R. Back	Northeast Natural Energy LLC	12.5% or Greater	1608	22
	WV-061-004585-096	Eileene Leah Ford	Northeast Natural Energy LLC	12.5% or Greater	1618	617
	WV-061-004585-100	Elaine Louise Yarberry	Northeast Natural Energy LLC	12.5% or Greater	1621	612
	WV-061-004585-022	Elaine M. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1597	225
	WV-061-004599-001	Ellen E. Tuttle Lemiey	Northeast Natural Energy LLC	12.5% or Greater	1595	506
	WV-061-004585-016	Ellen R. Yost	Northeast Natural Energy LLC	12.5% or Greater	1596	841
	WV-061-004584-057	Floyd W. Wright, aka Floyd William Wright	Northeast Natural Energy LLC	12.5% or Greater	1596	578
	WV-061-004585-155	Frankie Lynn Wilson	Northeast Natural Energy LLC	12.5% or Greater	1679	268
	WV-061-004722-001	Freddie D. Moore	Northeast Natural Energy LLC	12.5% or Greater	1604	379
	WV-061-004584-147	Frederick Conner	Northeast Natural Energy LLC	12.5% or Greater	1647	429
	WV-061-004585-146	Gary B. Wilson	Northeast Natural Energy LLC	12.5% or Greater	1651	141
	WV-061-004585-117	Gaylord A. Schulz George Edward Stiles Office	Northeast Natural Energy LLC	12.5% or Greater	1630	26
	WV-061-004585-044	George Edward Stiles Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1602	35
	WV-061-004585-139	1003DEL M33ELLIDIA CHALCH	Northeast Natural Energy LLC	12.5% or Greater	1642	376
	WV-061-004591-001	Gregory G. Michael Mar. 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1595	384
	WV-061-004585-020	Gregory C. Mason	Northeast Natural Energy LLC	12.5% or Greater	1597	221
	WV-061-004585-064	Gregory Lee Hamilton WV Department of Environmental Devi	Northeast Natural Energy LLC	12.5% or Greater	1605	508
	WV-061-004585-055	Harriet Frances Bell Environmental Protection	Northeast Natural Energy LLC	12.5% or Greater	1605	128
	WV-061-004584-152	Heirs of Katherine P. Yost	Northeast Natural Energy LLC	12.5% or Greater	136	421
	WV-061-004585-004	Ida M. Osecky, fka Ida M. Yost	Northeast Natural Energy LLC	12.5% or Greater	1593	659
	WV-061-004585-027	Jack L. Yost	Northeast Natural Energy LLC	12.5% or Greater	1598	419
	WV-061-004584-096	James Conner	Northeast Natural Energy LLC	12.5% or Greater	1604	128
	WV-061-004584-151	James G. Dunn, Trustee, Opal Friend Trust Agreement			136	417
		dated June 9th, 1998	Northeast Natural Energy LLC	12.5% or Greater		
	WV-061-004585-032	James Lee Wilson	Northeast Natural Energy LLC	12.5% or Greater	1599	212

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-004585-131	James Paul Wilson	Northeast Natural Energy LLC	12.5% or Greater	1640	399
	WV-061-004585-108	James William Wilson III	Northeast Natural Energy LLC	12.5% or Greater	1623	25
	WV-061-004585-109	James William Wilson IV	Northeast Natural Energy LLC	12.5% or Greater	1623	27
	WV-061-004599-034	Jamy D. Teal	Northeast Natural Energy LLC	12.5% or Greater	1608	18
	WV-061-004591-001	Jane Ann Reynolds	Northeast Natural Energy LLC	12.5% or Greater	1595	384
	WV-061-004585-031	Janet Marie Snider	Northeast Natural Energy LLC	12.5% or Greater	1599	210
	WV-061-004599-002	Janice C. Slifko and Harry J. Slifko	Northeast Natural Energy LLC	12.5% or Greater	1597	599
	WV-061-004585-063	Janice Ruth Brock Willis	Northeast Natural Energy LLC	12.5% or Greater	1605	142
	WV-061-004599-040	Jason Sumner	Northeast Natural Energy LLC	12.5% or Greater	1610	366
	WV-061-004599-061	Jean Emory	Northeast Natural Energy LLC	12.5% or Greater	1636	739
	WW 061 004E94 031	Jeff Tennant, a/k/a Jeffrey Joseph Tennant, a/k/a Jeffrey			1595	486
	WV-061-004584-031	Tennant	Northeast Natural Energy LLC	12.5% or Greater	1393	460
	WV-061-004599-025	Jeffery A. Tennant.	Northeast Natural Energy LLC	12.5% or Greater	1607	264
	WV-061-004599-022	Jeffery Todd Tennant	Northeast Natural Energy LLC	12.5% or Greater	1615	779
	WV-061-004584-134	Jeffrey A. Sago	Northeast Natural Energy LLC	12.5% or Greater	1627	319
	WV-061-004599-022	Jeffrey Todd Moore	Northeast Natural Energy LLC	12.5% or Greater	1615	779
	WV-061-004584-153	Jerry A. Robinson	Northeast Natural Energy LLC	12.5% or Greater	139	387
	WV-061-004585-057	Jessica D. McAninch	Northeast Natural Energy LLC	12.5% or Greater	1605	130
	WV-061-004585-034	Jill R. Heldreth, fka, Jill Renee Maley and Alan K. Heldreth	Northeast Natural Energy LLC	12.5% or Greater	1599	216
	WV-061-004585-049	Jimmie F. Yost	Northeast Natural Energy LLC	12.5% or Greater	1604	197
	WV-061-004585-035	Jody Lynn Maley Smith	Northeast Natural Energy LLC	12.5% or Greater	1599	218
	WV-061-004585-129	John Bruce Wilson	Northeast Natural Energy LLC	12.5% or Greater	1638	514
<u>-i</u>	WV-061-004584-064	John Conner	Northeast Natural Energy LLC	12.5% or Greater	1597	582
	WV-061-004585-152	John Robinson	Northeast Natural Energy LLC	12.5% or Greater	1679	262
	WV-061-004584-120	John W. Hunnell, aka, John Wayne Hunnell	Northeast Natural Energy LLC	12.5% or Greater	1615	839
	WV-061-004585-087	John William Wilson	Northeast Natural Energy LLC	12.5% or Greater	1615	841
	WV-061-004585-121	Jon Ray Keener	Northeast Natural Energy LLC	12.5% or Greater	1643	457
-	WV-061-004599-066	Joyce C. Hull Walker	Northeast Natural Energy LLC	12.5% or Greater	1648	241
	WV-061-004599-003	Joyce K. Valentine	Northeast Natural Energy LLC	12.5% or Greater	1597	601
	WV-061-004585-106	Judith Ann Prater	Northeast Natural Energy LLC	12.5% or Greater	1623	21
	WV-061-004585-116	Judith Kay Fenn	Northeast Natural Energy LLC	12.5% or Greater	1604	126
	WV-061-004599-026	Judy Ann Tennant Smith	Northeast Natural Energy LLC	12.5% or Greater	1607	266
	WV-061-004599-032	Judy E. King, aka Judy Elizabeth Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1607	624
	WV-061-004585-118	June Ellen Spates and Gary Spates	Northeast Natural Energy LLC	12.5% or Greater	1631	406
	WV-061-004585-135	Karen Brittingham	Northeast Natural Energy LLC	12.5% or Greater	1643	59
•	WV-061-004585-097	Karen Leigh Wilson	Northeast Natural Energy LLC	12.5% or Greater	1618	619
	WV-061-004585-153	Karen Robinson	Northeast Natural Energy LLC	12.5% or Greater	1679	264
	WV-061-004585-070	Karen Leigh Wilson Karen Robinson Karen Sue Hillberry Haller Katherine Gail King	Northeast Natural Energy LLC	12.5% or Greater	1607	115
	WV-061-004585-140	Katherine Gail King	Northeast Natural Energy LLC	12.5% or Greater	1642	378
	WV-061-004584-077	Kathy Jo Ramsey 경험 🥿 등표	Northeast Natural Energy LLC	12.5% or Greater	1599	130
	WV-061-004585-156	Kelly Robinson	Northeast Natural Energy LLC	12.5% or Greater	1679	270

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-004584-045	Kenneth D. Arnett	Northeast Natural Energy LLC	12.5% or Greater	1596	744
	WV-061-004599-005	Kenneth E. Kiger	Northeast Natural Energy LLC	12.5% or Greater	1597	605
	WV-061-004585-080	Kenneth Hillberry	Northeast Natural Energy LLC	12.5% or Greater	1610	834
	WV-061-004599-062	Kimberly Woodham, trustee of The David Henderson Trust	Northeast Natural Energy LLC	12.5% or Greater	1639	811
	WV-061-004585-092	Larry L. Rush	Northeast Natural Energy LLC	12.5% or Greater	1615	845
	WV-061-004599-054	Lea Ann Papesh	Northeast Natural Energy LLC	12.5% or Greater	1627	325
	WV-061-004585-143	Leigh Ann Emery	Northeast Natural Energy LLC	12.5% or Greater	1648	345
-	WV-061-004599-041	Leora Mae Sayers aka Leora Mae Corder	Northeast Natural Energy LLC	12.5% or Greater	1610	368
	WV-061-004585-119	LeRoy Curt Schulz, a/k/a LeRoy C. Schulz	Northeast Natural Energy LLC	12.5% or Greater	1631	408
	WV-061-004585-088	Leslie J. Bartlett, aka, Leslie Jay Bartlett	Northeast Natural Energy LLC	12.5% or Greater	1615	843
	WV-061-004584-056	Linda D. Wilfong	Northeast Natural Energy LLC	12.5% or Greater	1596	576
	WV-061-004585-122	Linda M. Sutphin	Northeast Natural Energy LLC	12.5% or Greater	1633	463
	WV-061-004599-006	Linda Maran, aka, Linda Moran	Northeast Natural Energy LLC	12.5% or Greater	1602	37
	WV-061-004585-125	Linn Jarrett, interest of Clifford W. Jarrett	Northeast Natural Energy LLC	12.5% or Greater	1637	839
	WV-061-004584-009	Lola Ercelene Shriver May	Northeast Natural Energy LLC	12.5% or Greater	1594	102
	WV-061-004585-048	Loretta Lou Dodrill	Northeast Natural Energy LLC	12.5% or Greater	1604	195
	WV-061-004585-059	Mabel Correll Cummins	Northeast Natural Energy LLC	12.5% or Greater	1605	134
	WV-061-004585-040	Margaret A. Berdine	Northeast Natural Energy LLC	12.5% or Greater	1600	687
	WV-061-004584-146	Margaret Batton as Trustee for Timberlyn Hunter Alana Kramer	Northeast Natural Energy LLC	12.5% or Greater	1643	578
	WV-061-004585-058	Margaret Collins Wilson	Northeast Natural Energy LLC	12.5% or Greater	1605	132
	WV-061-004585-126	Mark A. Jarrett	Northeast Natural Energy LLC	12.5% or Greater	1637	841
-	WV-061-004585-093	Mark Eugene Wilson	Northeast Natural Energy LLC	12.5% or Greater	1615	847
	WV-061-004585-137	Mark Wilson	Northeast Natural Energy LLC	12.5% or Greater	1640	588
	WV-061-004585-073	Martha Jane Musgrave Lucas	Northeast Natural Energy LLC	12.5% or Greater	1607	262
	WV-061-004584-028	Martha Jean Tennant Walker	Northeast Natural Energy LLC	12.5% or Greater	1595	480
	WV-061-004585-060	Marvin L. Wilson II	Northeast Natural Energy LLC	12.5% or Greater	1605	136
	WV-061-004599-029	Mary Florence Lemley, f/k/a Mary Florence Tennant	Northeast Natural Energy LLC	12.5% or Greater	1607	618
	WV-061-004585-148	Mary Janet Kennedy	Northeast Natural Energy LLC	12.5% or Greater	1655	615
-	WV-061-004584-066	Mary Jo Venezia	Northeast Natural Energy LLC	12.5% or Greater	1598	603
	WV-061-004585-054	Mary Mahaffey, f/k/a Mary Jo Lake	Northeast Natural Energy LLC	12.5% or Greater	1605	126
	WV-061-004585-019	Melinda P. Heidekat and Jeffrey P. Heidekat	Northeast Natural Energy LLC	12.5% or Greater	1597	1
	WV-061-004584-030	Melody Tennant, a/k/a Melody Ann Tennant	Northeast Natural Energy LLC	12.5% or Greater	1595	484
	WV-061-004584-104	Michael D. Haught	Northeast Natural Energy LLC	12.5% or Greater	1605	504
	WV-061-004585-002	Michael G. Phillips	Northeast Natural Energy LLC	12.5% or Greater	1593	655
	WV-061-004585-002	Michael P. Joliff aka Michael P. Jolliff	Northeast Natural Energy LLC	12.5% or Greater	1612	118
	WV-061-005573-001	Michael Smoot, a/k/a Michael Confishice of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1675	217
	WV-061-004585-111	Michael Stitchick	Northeast Natural Energy LLC	12.5% or Greater	1627	321
	WV-061-004599-052	Mike Tennant MAR 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1611	688
	WV-061-004585-037	Molly E. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1600	285

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	WV-061-004585-082	Myrtle Rae Wilson	Northeast Natural Energy LLC	12.5% or Greater	1611	682
	WV-061-004585-013	Nancy A. Maggard and Ronnei E. Maggard	Northeast Natural Energy LLC	12.5% or Greater	1595	498
	WV-061-004585-053	Nancy Faye Kennedy	Northeast Natural Energy LLC	12.5% or Greater	1604	157
	WV-061-004584-001	Nancy R. Elkins and Emory Elkins	Northeast Natural Energy LLC	12.5% or Greater	1593	533
	WV-061-004584-007	Nellie M. Elder	Northeast Natural Energy LLC	12.5% or Greater	1594	98
	WV-061-004585-154	Nicholas Robinson	Northeast Natural Energy LLC	12.5% or Greater	1679	266
	WV-061-004585-151	Nicole R. Alan, f/k/a Nicole R. Robinson	Northeast Natural Energy LLC	12.5% or Greater	1678	311
	WV-061-004585-050	Pamela Sue McClain	Northeast Natural Energy LLC	12.5% or Greater	1604	130
	WV-061-004585-062	Patricia A. Jones Eddy	Northeast Natural Energy LLC	12.5% or Greater	1605	140
	WV-061-004585-105	Patricia Anne Davis	Northeast Natural Energy LLC	12.5% or Greater	1623	19
	WV-061-004584-101	Patricia Crowley	Northeast Natural Energy LLC	12.5% or Greater	1605	11
	WAY OCT OOMERE ORE	Paul J. Bartlett, a/k/a Paul Jameson Bartlett and Donna L.			1613	36
	WV-061-004585-085	Bartlett	Northeast Natural Energy LLC	12.5% or Greater	1013	30
	WV-061-004599-018	Paul Kenneth Tuttle and Heather Tuttle	Northeast Natural Energy LLC	12.5% or Greater	1604	371
	WV-061-004585-110	Pauline Louise Sharp	Northeast Natural Energy LLC	12.5% or Greater	1623	521
	WV-061-004584-063	Pauline W. Moore, by her AIF, Allen K. Moore	Northeast Natural Energy LLC	12.5% or Greater	1597	580
	WV-061-004585-014	Phillip D. Yost and Melissa Yost	Northeast Natural Energy LLC	12.5% or Greater	1593	655
	WV-061-004584-092	R. Bruce Rogers	Northeast Natural Energy LLC	12.5% or Greater	1604	124
	WV-061-004585-084	Randall Hamilton	Northeast Natural Energy LLC	12.5% or Greater	1613	34
	WV-061-004585-015	Randy D. Yost	Northeast Natural Energy LLC	12.5% or Greater	1595	502
	WV-061-004585-078	Rebecca Kay Shifflett	Northeast Natural Energy LLC	12.5% or Greater	1608	1
	WV-061-004585-033	Regina Catherine Yost	Northeast Natural Energy LLC	12.5% or Greater	1599	214
	WV-061-004585-142	Rex Wilson, a/k/a Calvin Rex Wilson	Northeast Natural Energy LLC	12.5% or Greater	1643	461
	WV-061-004585-009	Rhonda A. Tennant, aka, Rhonda Tennant	Northeast Natural Energy LLC	12.5% or Greater	1594	385
	WV-061-004585-051	Richard Carlyle Keener, heir of Richard H. Keener	Northeast Natural Energy LLC	12.5% or Greater	1604	132
	WV-061-004585-099	Richard Coleman Wilson Jr.	Northeast Natural Energy LLC	12.5% or Greater	1618	623
	WV-061-004585-026	Richard K. Yost Jr.	Northeast Natural Energy LLC	12.5% or Greater	1598	417
	WV-061-004584-061	Richard L. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1596	656
	WV-061-004585-113	Richard Wilson	Northeast Natural Energy LLC	12.5% or Greater	1627	323
	WV-061-004599-050	Rita Darlene Tennant	Northeast Natural Energy LLC	12.5% or Greater	1610	836
	WV-061-004584-081	Robert Bruce Arnett and Pamela Sue Arnett	Northeast Natural Energy LLC	12.5% or Greater	1600	681
	WV-061-004585-083	Robert Eugene Hillberry	Northeast Natural Energy LLC	12.5% or Greater	1611	684
	WV-061-004585-130	Robert M. Smith	Northeast Natural Energy LLC	12.5% or Greater	1639	801
	WV-061-004584-098	Robert P. Walker	Northeast Natural Energy LLC	12.5% or Greater	1605	5
	WV-061-004584-149	Robert Tennant, a/k/a Frank Tennant	Northeast Natural Energy LLC	12.5% or Greater	135	458
	W/V 061 004500 042	Robin K. Walls, aka, Robin Tuttle Walls, aka, Robin Kay			1610	370
	WV-061-004599-042	Tuttle Walls	Northeast Natural Energy LLC	12.5% or Greater	1010	
	WV-061-004585-008	Robin L. Libert	Northeast Natural Energy LLC	12.5% or Greater	1594	383
	WV-061-004585-079	Rodney Hamilton RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1610	832
	WV-061-004585-136	Roger Huggins Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1643	61
	WV-061-004585-074	Ronald C. Smouse	Northeast Natural Energy LLC	12.5% or Greater	1607	606
	WV-061-004599-030	Ronald Ray Tuttle MAR 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1607	620

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-004585-141	Rose W. Ramsey, a/k/a Rosalea Ramsey	Northeast Natural Energy LLC	12.5% or Greater	1643	459
	WV-061-004585-076	Roseanna Kay Smouse McRoberts	Northeast Natural Energy LLC	12.5% or Greater	1607	610
	WV-061-004584-097	Ruby G. Walker	Northeast Natural Energy LLC	12.5% or Greater	1605	3
	WV-061-004584-016	Russel D. Walters	Northeast Natural Energy LLC	12.5% or Greater	1594	377
	WV-061-004585-098	Sandra Searcy	Northeast Natural Energy LLC	12.5% or Greater	1618	621
·	WV-061-004599-024	Sandra Tennant Thomas	Northeast Natural Energy LLC	12.5% or Greater	1606	480
	WV-061-004585-047	Scott McAninch	Northeast Natural Energy LLC	12.5% or Greater	1602	250
	WV-061-004585-094	Scott Michael Wilson	Northeast Natural Energy LLC	12.5% or Greater	1615	849
	WV-061-004584-032	Scott Tennant, a/k/a Scott Douglas Tennant	Northeast Natural Energy LLC	12.5% or Greater	1595	488
- -	WV-061-004585-145	Seckman Dee Wilson Jr.	Northeast Natural Energy LLC	12.5% or Greater	1648	235
	WV-061-004599-027	Sharon L. Tennant Walsh	Northeast Natural Energy LLC	12.5% or Greater	1607	268
	WV-061-004599-021	Sherry Irene Frazier	Northeast Natural Energy LLC	12.5% or Greater	1613	38
	WV-061-004584-015	Shirley J. Miller	Northeast Natural Energy LLC	12.5% or Greater	1594	375
	WV-061-004584-065	Shirley J. Stieringer, aka Shirley Schillingburg	Northeast Natural Energy LLC	12.5% or Greater	1602	246
	WV-061-004722-002	Shirley Lou Brookover Moore	Northeast Natural Energy LLC	12.5% or Greater	1604	381
	WV-061-004585-045	Shirley Marlene Hollandsworth and Barry Hollandsworth RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1602	246
	WV-061-004599-013	Shirley Sue Tennant Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1604	234
	WV-061-004585-101	Stephen Earl Farlow	Northeast Natural Energy LLC	12.5% or Greater	1621	614
	WV-061-004599-036	Sung Ja Tuttle MAR 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1613	836
	WV-061-004584-035	Sylvia D. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1595	494
	WV-061-004585-052	Tammy Jean Cunningham WV Department of	Northeast Natural Energy LLC	12.5% or Greater	1604	134
	WV-061-004585-103	Tana D. Butler Environmental Protection	Northeast Natural Energy LLC	12.5% or Greater	1622	558
	WV-061-004599-033	Tenisha Elaine Sumner Truitt	Northeast Natural Energy LLC	12.5% or Greater	1608	16
	WV-061-004584-069	The Tennant Family Irrevocable Trust, Lisa Moore Trustee, - interest of Brenda S. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1599	114
	WV-061-004584-075	The Wilson Family Trust - Interest of Barbara Pritchard, a/k/a Barbara Wilson	Northeast Natural Energy LLC	12.5% or Greater	1599	126
	WV-061-004584-090	Thomas Kelley	Northeast Natural Energy LLC	12.5% or Greater	1604	191
	WV-061-004599-064	Tina Marie Tennant Flynn	Northeast Natural Energy LLC	12.5% or Greater	1643	820
	WV-061-004585-147	Todd A. Rupert	Northeast Natural Energy LLC	12.5% or Greater	1653	179
	WV-061-004585-104	Valerie Louise Farlow	Northeast Natural Energy LLC	12.5% or Greater	1622	560
	WV-061-004584-103	Velda E. Moore, f/k/a Velda Elizabeth Tennant	Northeast Natural Energy LLC	12.5% or Greater	1605	497
	WV-061-004584-010	Vickie Lynn Kisner	Northeast Natural Energy LLC	12.5% or Greater	1594	104
	WV-061-004584-058	W. Keith Arnett	Northeast Natural Energy LLC	12.5% or Greater	1596	580
	WV-061-004585-007	Waynetta Jean Parker, aka, Waynetta J. Parker	Northeast Natural Energy LLC	12.5% or Greater	1594	381
	WV-061-004599-067	William Kelley	Northeast Natural Energy LLC	12.5% or Greater	135	462
	WV-061-004599-004	William L. Kiger	Northeast Natural Energy LLC	12.5% or Greater	1597	603
	WV-061-004585-011	William R. Tennant aka William Robert Tennant, by his AIF, Patricia Ann Eddy	Northeast Natural Energy LLC	12.5% or Greater	1595	496
	WV-061-004585-006	Wilma G. Wiliams	Northeast Natural Energy LLC	12.5% or Greater	1594	379
	WV-061-004584-046	Wilma L. Higgins	Northeast Natural Energy LLC	12.5% or Greater	1596	837

Tract	Lease Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book	Page
	WV-061-004585-021	Zachary L. Mason	Northeast Natural Energy LLC	12.5% or Greater	1597	223
	WV-061-004585-138	Zeddic Lanham	Northeast Natural Energy LLC	12.5% or Greater	1643	57
	WV-061-004584-091	Zeva Carol Scripp	Northeast Natural Energy LLC	12.5% or Greater	1604	193
D	WV-061-004367-015	Celia P. Askew and Robert L. Askew	Northeast Natural Energy LLC	12.5% or Greater	1585	201
	WV-061-004367-019	Sylvia Bailes Levy, Trustee for Seymour Bailes Trust	Northeast Natural Energy LLC	12.5% or Greater	1593	683
	WV-061-004367-014	Carmel G. Brookover	Northeast Natural Energy LLC	12.5% or Greater	1581	345
	WV-061-004564-002	Deanna G. Cannata	Northeast Natural Energy LLC	12.5% or Greater	1604	846
	WV-061-004367-005	Helen Farringer	Northeast Natural Energy LLC	12.5% or Greater	1577	67
	WV-061-004367-001	Patricia Ann Fleming	Northeast Natural Energy LLC	12.5% or Greater	1577	59
	WV-061-004367-013	Paulette Flowers	Northeast Natural Energy LLC	12.5% or Greater	1580	56
	WV-061-004367-002	Betty Jo King	Northeast Natural Energy LLC	12.5% or Greater	1577	61
	WV-061-004564-001	Roberta Miller King	Northeast Natural Energy LLC	12.5% or Greater	1591	730
-	WV-061-004367-008	Rhonda B. Kraus	Northeast Natural Energy LLC	12.5% or Greater	1578	419
	WV-061-004367-016	Robert Lee Miller	Northeast Natural Energy LLC	12.5% or Greater	1590	337
	WV-061-004367-012	Myra June Neylon	Northeast Natural Energy LLC	12.5% or Greater	1579	255
	WV-061-004367-020	Noumenon Corporation	Northeast Natural Energy LLC	12.5% or Greater	1661	772
	WV-061-004367-009	Doris Jean Price	Northeast Natural Energy LLC	12.5% or Greater	1578	421
	WV-061-004367-006	Gary Michael Price	Northeast Natural Energy LLC	12.5% or Greater	1578	417
E	WV-061-004367-015	Celia P. Askew and Robert L. Askew	Northeast Natural Energy LLC	12.5% or Greater	1585	201
	WV-061-004367-019	Sylvia Bailes Levy, Trustee for Seymour Bailes Trust	Northeast Natural Energy LLC	12.5% or Greater	1593	683
	WV-061-004367-014	Carmel G. Brookover	Northeast Natural Energy LLC	12.5% or Greater	1581	345
	WV-061-004564-002	Deanna G. Cannata	Northeast Natural Energy LLC	12.5% or Greater	1604	846
	WV-061-004367-005	Helen Farringer	Northeast Natural Energy LLC	12.5% or Greater	1577	67
	WV-061-004367-001	Patricia Ann Fleming	Northeast Natural Energy LLC	12.5% or Greater	1577	59
	WV-061-004367-013	Paulette Flowers	Northeast Natural Energy LLC	12.5% or Greater	1580	56
	WV-061-004367-002	Betty Jo King	Northeast Natural Energy LLC	12.5% or Greater	1577	61
	WV-061-004564-001	Roberta Miller King	Northeast Natural Energy LLC	12.5% or Greater	1591	730
	WV-061-004367-008	Rhonda B. Kraus	Northeast Natural Energy LLC	12.5% or Greater	1578	419
	WV-061-004367-016	Robert Lee Miller	Northeast Natural Energy LLC	12.5% or Greater	1590	337
	WV-061-004367-012	Myra June Neylon	Northeast Natural Energy LLC	12.5% or Greater	1579	255
	WV-061-004367-020	Noumenon Corporation	Northeast Natural Energy LLC	12.5% or Greater	1661	772
	WV-061-004367-009	Doris Jean Price	Northeast Natural Energy LLC	12.5% or Greater	1578	421
	WV-061-004367-006	Gary Michael Price	Northeast Natural Energy LLC	12.5% or Greater	1578	417
F	WV-061-004758-006	Robert Bruce Arnett and Pamela Sue Arnett	Northeast Natural Energy LLC	12.5% or Greater	1608	72
	WV-061-004707-009	Kenneth D. Arnett RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1609	1
	WV-061-004707-006	W. Keith Arnett Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1608	844
	WV-061-004707-004	Wilma L. Higgins	Northeast Natural Energy LLC	12.5% or Greater	1606	68
	WV-061-004707-010	Brian L. Jolliff 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1611	381
	WV-061-004707-011	Michael P. Joliff	Northeast Natural Energy LLC	12.5% or Greater	1619	629
	WV-061-005119-001	April Dawn Sago WV Department of	Northeast Natural Energy LLC	12.5% or Greater	1618	781
	WV-061-003314-001	MC Mineral Company, LLC Environmental Protection	Chesapeake Appalachia, LLC	12.5% or Greater	1487	209
	WV-061-003023-013	Chesapeake Appalachia, LLC	Northeast Natural Energy LLC	12.5% or Greater	120	769

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2.77	WV-061-004758-009	Wilson Family Irrevocable Trust	Northeast Natural Energy LLC	12.5% or Greater	1610	842
	WV-061-004707-002	Anthony G. Sago	Northeast Natural Energy LLC	12.5% or Greater	1605	745
	WV-061-004707-003	David K. Sago	Northeast Natural Energy LLC	12.5% or Greater	1605	747
	WV-061-004707-008	Jeffrey Sago	Northeast Natural Energy LLC	12.5% or Greater	1608	848
	WV-061-004758-008	Tennant Family Irrevocable Trust	Northeast Natural Energy LLC	12.5% or Greater	1612	144
	WV-061-004707-005	Richard L. Tennant and Iris Ann Tennant	Northeast Natural Energy LLC	12.5% or Greater	1606	120
	WV-061-004707-007	Sylvia D. Tennant	Northeast Natural Energy LLC	12.5% or Greater	1608	846
G	WV-061-005568-002	Arthur Lothstein	Northeast Natural Energy LLC	12.5% or Greater	1691	782
	WV-061-005568-003	Leslie Lothstein	Northeast Natural Energy LLC	12.5% or Greater	1691	784
	WV-061-003278-005	Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC	12.5% or Greater	1487	232
	WV-061-003023-013	Chesapeake Appalachia, LLC	Northeast Natural Energy LLC	12.5% or Greater	120	769
Н	WV-061-003693-002	Celia P. Askew and Robert L. Askew	Northeast Natural Energy LLC	12.5% or Greater	1557	441
	WV-061-003693-001	Carmel G. Brookover	Northeast Natural Energy LLC	12.5% or Greater	1535	847
	WV-061-004564-002	Deanna G. Cannata	Northeast Natural Energy LLC	12.5% or Greater	1604	846
	WV-061-003693-007	Helen Farringer	Northeast Natural Energy LLC	12.5% or Greater	1553	280
	WV-061-003693-005	Patricia Ann Fleming	Northeast Natural Energy LLC	12.5% or Greater	1557	497
	WV-061-003758-002	Paulette Flowers	Northeast Natural Energy LLC	12.5% or Greater	1550	209
	WV-061-003693-004	Betty Jo King	Northeast Natural Energy LLC	12.5% or Greater	1544	112
	WV-061-004564-001	Roberta Miller King	Northeast Natural Energy LLC	12.5% or Greater	1591	730
	WV-061-003758-004	Rhonda B. Kraus	Northeast Natural Energy LLC	12.5% or Greater	1549	606
	WV-061-003693-010	John L. Loth and Harriet Loth	Northeast Natural Energy LLC	12.5% or Greater	1564	804
	WV-061-003693-008	Debbie K. McLarty and James D. Hebert	Northeast Natural Energy LLC	12.5% or Greater	1554	438
	WV-061-003693-009	John M. McLarty and Virginia McLarty	Northeast Natural Energy LLC	12.5% or Greater	1551	239
	WV-061-003758-005	Robert Lee Miller, Jr. and Lorri A. Miller	Northeast Natural Energy LLC	12.5% or Greater	1559	584
	WV-061-003758-001	Myra June Neylon	Northeast Natural Energy LLC	12.5% or Greater	1552	422
	WV-061-003693-003	Doris Jean Price	Northeast Natural Energy LLC	12.5% or Greater	1553	309
	WV-061-003758-003	Gary Michael Price	Northeast Natural Energy LLC	12.5% or Greater	1548	11
	WV-061-003693-006	Betty Eileen Roy	Northeast Natural Energy LLC	12.5% or Greater	1554	440
	WV-061-004132-001	Waco Oil & Gas Company, Inc.	Northeast Natural Energy LLC	12.5% or Greater	1564	219
- 1	WV-061-003693-002	Celia P. Askew and Robert L. Askew	Northeast Natural Energy LLC	12.5% or Greater	1557	441
	WV-061-004564-001	Carmel G. Brookover	Northeast Natural Energy LLC	12.5% or Greater	1535	847
	WV-061-004564-002	Deanna G. Cannata	Northeast Natural Energy LLC	12.5% or Greater	1604	846
	WV-061-003693-007	RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1553	280
	WV-061-003693-005	Patricia Ann Fleming Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1557	497
	WV-061-003758-002	Paulette Flowers MAR 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1550	209
	WV-061-003693-004	Betty Jo King	Northeast Natural Energy LLC	12.5% or Greater	1544	112
	WV-061-004564-001	Poherta Miller King	Northeast Natural Energy LLC	12.5% or Greater	1591	730
	WV-061-003758-004	VVV Department of	Northeast Natural Energy LLC	12.5% or Greater	1549	606
	WV-061-003693-010	Rhonda B. Kraus Environmental Protection John L. Loth and Harriet Loth	Northeast Natural Energy LLC	12.5% or Greater	1564	804
	WV-061-003693-008	Debbie K. McLarty and James D. Hebert	Northeast Natural Energy LLC	12.5% or Greater	1554	438
	WV-061-003693-009	John M. McLarty and Virginia McLarty	Northeast Natural Energy LLC	12.5% or Greater	1551	239
	WV-061-003758-005	Robert Lee Miller, Jr. and Lorri A. Miller	Northeast Natural Energy LLC	12.5% or Greater	1559	584

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	WV-061-005563-002	Mark Eddy	Northeast Natural Energy LLC	12.5% or Greater	1678	329
	WV-061-003758-001	Myra June Neylon	Northeast Natural Energy LLC	12.5% or Greater	1552	422
	WV-061-005563-001	Noumenon Corporation	Northeast Natural Energy LLC	12.5% or Greater	1667	103
	WV-061-003693-003	Doris Jean Price	Northeast Natural Energy LLC	12.5% or Greater	1553	309
	WV-061-003758-003	Gary Michael Price	Northeast Natural Energy LLC	12.5% or Greater	1548	11
	WV-061-003693-006	Betty Eileen Roy	Northeast Natural Energy LLC	12.5% or Greater	1554	440
J	WV-061-003693-002	Celia P. Askew and Robert L. Askew	Northeast Natural Energy LLC	12.5% or Greater	1557	441
	WV-061-004564-001	Carmel G. Brookover	Northeast Natural Energy LLC	12.5% or Greater	1535	847
	WV-061-004564-002	Deanna G. Cannata	Northeast Natural Energy LLC	12.5% or Greater	1604	846
	WV-061-003693-005	Patricia Ann Fleming	Northeast Natural Energy LLC	12.5% or Greater	1557	497
	WV-061-003758-002	Paulette Flowers	Northeast Natural Energy LLC	12.5% or Greater	1550	209
	WV-061-003693-004	Betty Jo King	Northeast Natural Energy LLC	12.5% or Greater	1544	112
	WV-061-004564-001	Roberta Miller King	Northeast Natural Energy LLC	12.5% or Greater	1591	730
	WV-061-003758-004	Rhonda B. Kraus	Northeast Natural Energy LLC	12.5% or Greater	1549	606
	WV-061-005563-002	Mark Eddy	Northeast Natural Energy LLC	12.5% or Greater	1678	329
	WV-061-003758-001	Myra June Neylon	Northeast Natural Energy LLC	12.5% or Greater	1552	422
	WV-061-005563-001	Noumenon Corporation	Northeast Natural Energy LLC	12.5% or Greater	1667	103
	WV-061-003758-003	Gary Michael Price	Northeast Natural Energy LLC	12.5% or Greater	1548	11
	WV-061-003693-006	Betty Eileen Roy	Northeast Natural Energy LLC	12.5% or Greater	1554	440
	WV-061-004132-001	Waco Oil & Gas Company, Inc.	Northeast Natural Energy LLC	12.5% or Greater	1564	219
	WV-061-003758-005	Robert Lee Miller, Jr. and Lorri A. Miller	Northeast Natural Energy LLC	12.5% or Greater	1559	584
K	WV-061-005332-001	CNX Gas Company, LLC	Northeast Natural Energy LLC	12.5% or Greater	1632	789
L	WV-061-004875-001	Glenn Copeland	Northeast Natural Energy LLC	12.5% or Greater	1611	845
	WV-061-004875-002	Wayne Copeland	Northeast Natural Energy LLC	12.5% or Greater	1611	847
	WV-061-004875-023	Brenda Cook	Northeast Natural Energy LLC	12.5% or Greater	1628	460
	WV-061-004875-014	Candy Sue Delaney	Northeast Natural Energy LLC	12.5% or Greater	1618	366
	WV-061-004875-010	C. Sue Eddy	Northeast Natural Energy LLC	12.5% or Greater	1616	144
	WV-061-004875-005	Alice Varner	Northeast Natural Energy LLC	12.5% or Greater	1614	567
	WV-061-004875-006	Benjamin Gimmell	Northeast Natural Energy LLC	12.5% or Greater	1616	138
	WV-061-004875-008	Janet L. Jenkins	Northeast Natural Energy LLC	12.5% or Greater	1618	364
	WV-061-004875-012	Betty Jane Morris RECEIVED	Northeast Natural Energy LLC	12.5% or Greater	1616	148
	WV-061-004875-031	Justina Norris Office of Oil and Gas	Northeast Natural Energy LLC	12.5% or Greater	1640	325
	WV-061-004875-032	Meagan Norris	Northeast Natural Energy LLC	12.5% or Greater	1637	732
	WV-061-004875-033	Harold Norris Mar 1 6 2020	Northeast Natural Energy LLC	12.5% or Greater	1638	542
	WV-061-004875-030	Richard Norris Jr.	Northeast Natural Energy LLC	12.5% or Greater	1638	544
	WV-061-004875-020	Monica Auth WV Department of	Northeast Natural Energy LLC	12.5% or Greater	1618	643
_	WV-061-004875-021	Michelle Norris Gillie Environmental Protection	Northeast Natural Energy LLC	12.5% or Greater	1618	645
	WV-061-004875-026	Charles L. Cook	Northeast Natural Energy LLC	12.5% or Greater	1631	727
	WV-061-004875-027	Christopher W. Cook	Northeast Natural Energy LLC	12.5% or Greater	1631	729
	WV-061-004875-004	Rodney Norris	Northeast Natural Energy LLC	12.5% or Greater	1612	1
	WV-061-004875-013	Edna Jane Tennant	Northeast Natural Energy LLC	12.5% or Greater	1616	150
	WV-061-004875-015	Charles W. Varner	Northeast Natural Energy LLC	12.5% or Greater	1618	368

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	WV-061-004875-022	Flora Ruth Varner	Northeast Natural Energy LLC	12.5% or Greater	1618	647
	WV-061-004875-009	George W. Willard	Northeast Natural Energy LLC	12.5% or Greater	1616	142
	WV-061-004875-011	Joe C. Willard	Northeast Natural Energy LLC	12.5% or Greater	1616	146
	WV-061-004875-007	Marvin Eugene Willard	Northeast Natural Energy LLC	12.5% or Greater	1616	140
M	WV-061-005332-001	CNX Gas Company, LLC	Northeast Natural Energy LLC	12.5% or Greater	1632	789
N	WV-061-003890-001	Linda Margaret Warkentin	Northeast Natural Energy LLC	12.5% or Greater	1562	148
	WV-061-003890-005	James Robert Anderson	Northeast Natural Energy LLC	12.5% or Greater	1562	145
	WV-061-003314-001	MC Mineral Company, LLC	Chesapeake Appalachia, LLC	12.5% or Greater	1487	209
	WV-061-003023-013	Chesapeake Appalachia, LLC	Northeast Natural Energy LLC	12.5% or Greater	120	769
	WV-061-003890-003	Barbara T. Michalik, f/k/a Barbara T. Lemley	Northeast Natural Energy LLC	12.5% or Greater	1559	154
	WV-061-003886-002	Betty Anne Mathews, a/k/a Bette Anne Mathews	Northeast Natural Energy LLC	12.5% or Greater	1562	550
	WV-061-005157-048	Daniel Paul Brocklesby	Northeast Natural Energy LLC	12.5% or Greater	1647	514
	WV-061-005157-047	Donald Jay Brocklesby	Northeast Natural Energy LLC	12.5% or Greater	1647	512
	WV-061-005157-050	Floann Herrmann, f/k/a Floann Brocklesby	Northeast Natural Energy LLC	12.5% or Greater	1650	229
0	WV-061-003023-013	Chesapeake Appalachia, LLC	Northeast Natural Energy LLC	12.5% or Greater	120	769
	WV-061-003278-003	Chesapeake Appalachia, LLC	Chesapeake Appalachia, LLC	12.5% or Greater	1487	232
	WV-061-003023-013	Chesapeake Appalachia, LLC	Northeast Natural Energy LLC	12.5% or Greater	120	769
	WV-061-003062-001	Freddie W. Tennant	Chesapeake Appalachia, LLC	12.5% or Greater	1431	4

RECEIVED Office of Oil and Gas

MAR 1 6 2020



January 23, 2020

WV Department of Environmental Protection Office of Oil and Gas Management 601 57th Street, SE Charleston, West Virginia 25304

RE: Cummins 18H

Dear Permit Reviewer:

Please be advised that Northeast Natural Energy LLC has the right to drill, extract and produce the minerals beneath the roads identified as Days Run Road (Route 25), Memorial Road (Route 20), and County Route 20/1.

Sincerely,

Charles Dornetto

Manager - Land Operations

Enclosure

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Date of Notice Certification: 01/31/2020

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

API No. 47-

			Operator's	Well No. 1811	
			Well Pad N	lame: Cummir	is .
below for the	oeen given: he provisions in West Virginia Code (tract of land as follows:	§ 22-6A, the Operator has pro-			with the Notice Forms listed
State:	West Virginia	UTM NAD 83	Easting:	570286,3	
County:	Monongalia		Northing:	4390563.7	
District:	Clay	Public Road Acc		CR 25/3 (Yank H	ollow Road)
Quadrangle:	Blacksville, WV	Generally used fa	arm name:	Cummins	
Watershed:	Dunkard Creek				
it has provide information re of giving the requirements Virginia Code	the secretary, shall be verified and set the owners of the surface described and (c), se surface owner notice of entry to surface owner notice of entry to surface owner notice of subsection (b), section sixteen of \$22-6A-11(b), the applicant shall thave been completed by the applicant	bed in subdivisions (1), (2) a ection sixteen of this article; (in the pursuant to subsection (if this article were waived in ender proof of and certify to the	nd (4), subs i) that the red a), section t writing by	ection (b), sec quirement was en of this arti the surface ov	ction ten of this article, the deemed satisfied as a result cle six-a; or (iii) the notice wher; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Oprator has properly served the require ICK ALL THAT APPLY		his Notice C	ertification	OOG OFFICE USE: ONLY
☐ 1. NO	TICE OF SEISMIC ACTIVITY or	NOTICE NOT REQUIRED SEISMIC ACTIVITY WAS			RECEIVED/
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	/EY or □ NO PLAT SURV	EY WAS CO	ONDUCTED	☐ RECEIVED
■ 3. NO	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED NOTICE OF ENTRY FOR IT WAS CONDUCTED OF		A.1.7	RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER (PLEASE ATTACH)		CE OWNER	
■ 4. NO	ITCE OF PLANNED OPERATION	HEGEWED			☐ RECEIVED
■ 5. PUE	BLIC NOTICE	FEB 1 1 20	120		RECEIVED

Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Notary Public

Certification of Notice is hereby given:

THEREFORE, I Hollie Medley , have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:Northeast Natural Energy LLCAddress:707 Virginia St. E., Suite 1200By:Hollie MedleyCharleston, WV 25301Its:Regulatory ManagerFacsimile:304-241-5972

Telephone: 304-212-0422 Email: hmedley@nne-llc.com

Subscribed and sworn before me this Oth day of February, 202

My Commission Expires August 10, 2023

Oil and Gas Privacy Notice:

NOTARY PUBLIC STATE OF WEST VIRGINIA

Kristen Brooks Northeast Natural Energy LLC 48 Donley St., Suite 601 Morgantown, WV 26501

My Commission Expires Aug. 10, 2023

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



API NO. 47-	
OPERATOR WELL	NO. 18H
Well Pad Name: Cur	nmins

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time R	equirement: notice shall be pro	vided no later than the filing date of permit application.
Date of Notice Notice of:	2 1/28/2020 Date Permit Applie	eation Filed: 2/7/2020
☑ PERMIT	FOR ANY CERTI	FICATE OF APPROVAL FOR THE
WELL W		TRUCTION OF AN IMPOUNDMENT OR PIT
Delivery metho	od pursuant to West Virginia	Code § 22-6A-10(b)
☐ PERSON.	AL Z REGISTERED	☐ METHOD OF DELIVERY THAT REQUIRES A
SERVICE	The second secon	RECEIPT OR SIGNATURE CONFIRMATION
registered mail of sediment contro the surface of the oil and gas lease described in the operator or lesse more coal seams well work, if the impoundment or have a water we provide water for proposed well we subsection (b) or records of the strovision of this Code R. § 35-8-	or by any method of delivery that it plan required by section seven of the tract on which the well is or is pushold being developed by the properosion and sediment control plants, in the event the tract of land on the control plants; (4) The owners of record of the surface tract is to be used for the pit as described in section nine of ll, spring or water supply source for consumption by humans or domork activity is to take place. (c)(1) of this section hold interests in the seriff required to be maintained put article to the contrary, notice to a 5.7.a requires, in part, that the op	impoundment or pit as required by this article shall deliver, by personal service or by requires a receipt or signature confirmation, copies of the application, the erosion and if this article, and the well plat to each of the following persons: (1) The owners of record of proposed to be located; (2) The owners of record of the surface tract or tracts overlying the losed well work, if the surface tract is to be used for roads or other land disturbance as a submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, which the well proposed to be drilled is located [sic] is known to be underlain by one or surface tract or tracts overlying the oil and gas leasehold being developed by the proposed placement, construction, enlargement, alteration, repair, removal or abandonment of any if this article; (5) Any surface owner or water purveyor who is known to the applicant to potential within one thousand five hundred feet of the center of the well pad which is used to destic animals; and (6) The operator of any natural gas storage field within which the off more than three tenants in common or other co-owners of interests described in lands, the applicant may serve the documents required upon the person described in the ursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. erator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any and water testing as provided in section 15 of this rule.
☐ Application	Notice ☑ WSSP Notice ☑ E	&S Plan Notice Well Plat Notice is hereby provided to:
SURFACE O		☐ COAL OWNER OR LESSEE
Name: Jerry L		Name: see attached
Address: 74 Stat		Address:
Name:	v, WV 26570	COAL OPERATOR
Address:		Name
71dd1033.		Address:
VI SURFACE O	WNER(s) (Road and/or Other D	Disturbance)
Name: see attache		SURFACE OWNER OF WATER WELL
		Name: see attached
Name:		Address:
Address:		A STATE OF THE STA
		OPERATOR OF ANY NATURAL GAS STORAGE FIELD
	WNER(s) (Impoundments or Pi	
Name;		Address:
		*Please attach additional forms if necessary

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FEB 1 1 2020

Cummins 18H

<u>Surface Owner(s) – Road and/or Other</u> Disturbance:

Samuel W. & Stacey L. Matteo 404 Country Road Fairview, WV 26570

Patty Ann Kassay 1991 Daybrook Road Fairview, WV 26570

Bernice Tennant 299 Ellis Tennant Hollow Fairview, WV 26570

Precision Oil & Gas/Inc. PO Box 884 Bridgeport, WV 26330

Coal Owner(s) or Lessee(s):

CONSOL Mining Company LLC 1000 Consol Energy Drive Canonsburg, PA 15317

Gary G. Loring, et al 1176 Sands Drive Fairmont, WV 26554

Surface Owner of Water Well and/or Water Purveyor(s)

Melvin Luther Eddy et al 528 Memorial Road / Fairview, WV 26570

Bernice Tennant 299 Ellis Tennant Hollow/ Fairview, WV 26570

Todd J. & Carlene S. Moore 800 Memorial Rd Fairview, WV 26570

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FEB 1 1 2020

WV Department of Environmental Protection WW-6A (8-13)

API NO. 47OPERATOR WELL NO. 18H
Well Pad Name; Cummins

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12. Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A	
(8-13)	

API NO. 47-____OPERATOR WELL NO. 18H
Well Pad Name: Cummins

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas Department of Environmental Protection 601 57th St. SE Charleston, WV 25304 (304) 926-0450

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Office of Oil and Gas

FEB 1 1 2020

Such persons may request, at the time of submitting written comments, not we dethe permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT:

WW-6A (8-13)

API NO, 47OPERATOR WELL NO, 18H
Well Pad Name: Cummins

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have THIRTY (30) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

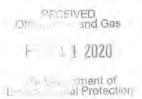
Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.



WW-6A (8-13)

API NO. 47-	
OPERATOR WELL	NO. 18H
Well Pad Name: Cun	nmins

Notice is hereby given by:

Well Operator: Northeast Natural Energy LLC

Telephone: 304-212-0422 Email: hmedley@nne-llc.com Address: 707 Virginia St. E, Suite 1200

Charleston, WV 25301

Facsimile: 304-241-5972

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Kristen Brooks
Northeast Natural Energy LLC
48 Donley St., Suite 601
Morgantown, WV 26501
My Commission Expires Aug. 10, 2023 3

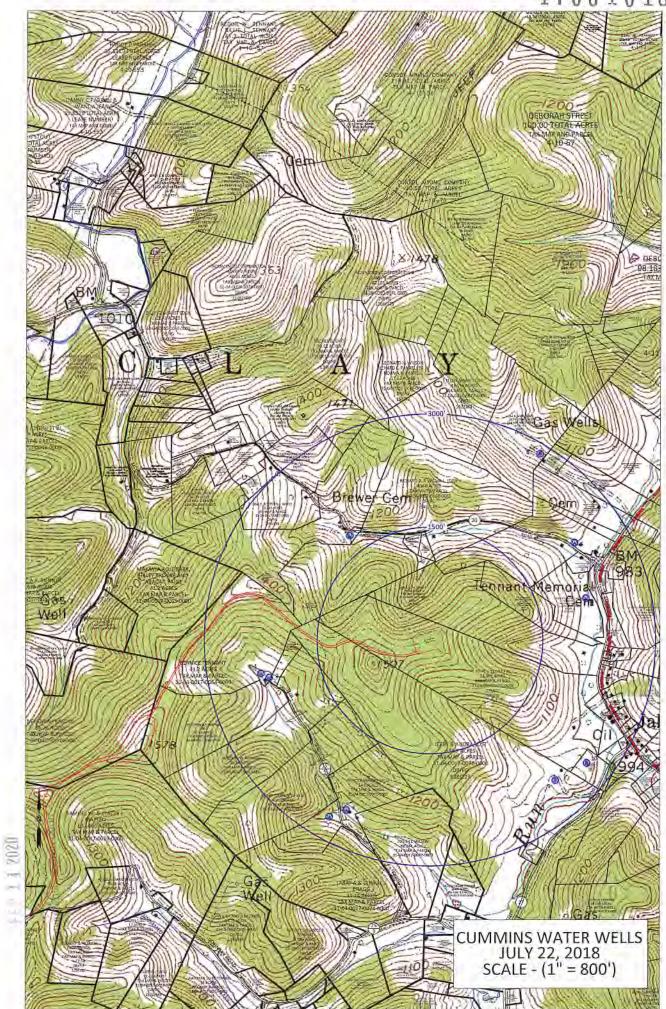
Subscribed and sworn before me this the day of February 12020

Kristen Brooks | Notary Public

My Commission Expires August 10, 2023

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PECEWED G88

WW-6A3 (1/12) Operator Well No. Cummins Pad

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF ENTRY FOR PLAT SURVEY

	ne Requirement:	Notice shall be prov	ided at least SEVEN (7) d	ays but no more tha	n FORTY-FIVE (45) days prior to
entry Date of No	tice: 10/25/2017	Date of Plan	ned Entry: 11/1/2017	-33	
Delivery m	ethod pursuant	to West Virginia Co	ode § 22-6A-10a		
Природ	ONAL	REGISTERED	■ METHOD OF DE	INEDV THAT DI	COLUDES A
			RECEIPT OR SIG		
SERV	ICE	MAIL	RECEIPT OR SIG	NATURE CONFIR	IMA HON
on to the su but no more beneath suc owner of m and Sedime Secretary, v enable the s	rface tract to con e than forty-five on the tract that has finerals underlying the Control Manu which statement s	duct any plat surveys lays prior to such ent led a declaration purs g such tract in the cou al and the statutes and hall include contact in obtain copies from the	required pursuant to this a ry to: (1) The surface owns suant to section thirty-six, a unty tax records. The notion d rules related to oil and ga information, including the a	article. Such notice er of such tract; (2) article six, chapter t be shall include a state as exploration and p	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any atement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to
	ACE OWNER(s)		■ COA	L OWNER OR LE	SSEE
	emice Tennant			CONSOL Mining Company	
	99 Ellis Tennant Hollow		A 1971/1-0-1	1000 Consol Energy Drive	
	irview, WV 26570	/	Address.	Canonsburg, PA 15317	
	ry L. & Audra Errol Yost	/	- I	Danish Sign 11 19011	
	Statler Run Road	•	■ MIN	ERAL OWNER(s)	
C 1000 C C C C C C C C C C C C C C C C C	irview, WV 26570	j.	Name: see		
	ecision Oil & Gas, Inc.	/	Address:	anached	
Address: P.			Address.		
	idgeport, WV 26330		*please attac	ch additional forms if ne	cessarv
Pursuant to a plat surve; State:	west Virginia Co West Virginia Co y on the tract of l West Virginia		Approx. Lati	ude & Longitude:	operator is planning entry to conduct 570274.51,4390561.22
County:	Monongalia		Public Road	Access:	CR 25/3 (Yank Hollow Road)
District:	Clay		Watershed:	447-1-1	Dunkard Creek
Quadrangle	Blacksville		Generally use	ed farm name:	Cummins
may be obta Charleston, obtained fro	ined from the Se WV 25304 (304	cretary, at the WV De-926-0450). Copies of the visiting www.dep.	epartment of Environments	al Protection headquional information re	Il and gas exploration and production parters, located at 601 57th Street, SE, elated to horizontal drilling may be Office of Oil and Gas
Well Operat	Of: Northeast Natura	al Energy LLC	Address:	707 Virginia St. E, Suite	1200
Telephone:	304-212-0422			Charleston, WV 25301	FEB 1 1 2020
Email:	hmedley@nne-lle	c.com	Facsimile:	304-241-5972	
					Environmental Protection

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Cummins Pad Notice of Entry for Plat Survey (WW-6A3) Attachment

Mineral Owners

A Keith Michael 241 Jefferson Street Bridgeport, WV 26330

Jane Ann Reynolds 2 West Hill Drive Fairmont, WV 26554

Gregory G. Michael 1176 Sands Drive Fairmont, WV 26554

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FEB 1 1 2020

WV Department of Environmental Protection

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

Notice Time Date of Noti	Requirement: Notice shall be provided at least ce: 01/28/2020 Date Permit	st TEN (10) days prior to filing a Application Filed; 02/07/2020	permit application.	
Delivery me	thod pursuant to West Virginia Code § 22-6.	A-16(b)		
☐ HAND	CERTIFIED MAIL			
DELIV		STED		
receipt reque drilling a hor of this subsection m and if availal	V. Va. Code § 22-6A-16(b), at least ten days prosted or hand delivery, give the surface owner notizental well: <i>Provided</i> , That notice given pursition as of the date the notice was provided to the ay be waived in writing by the surface owner. The surface is not provided to the surface owner. The surface owner will be a surfaced to the SURFACE OWNER.	otice of its intent to enter upon to suant to subsection (a), section to the surface owner: <i>Provided, how</i> . The notice, if required, shall incises of the operator and the operator	he surface owner's land for the purpose of en of this article satisfies the requirements wever. That the notice requirements of this lude the name, address, telephone number,	
Name: Jem		Name:		
Address: 74 5	statler Run Road	Address:		
Fain	iew, WV 26570			
the surface o State: County: District:	wner's land for the purpose of drilling a horizon West Virginia Monongalia Clay	ntal well on the tract of land as for UTM NAD 83 Easting: Northing: Public Road Access:	well operator has an intent to enter upon llows: 570286.3 4390563.7 SR 15/7 (Harvey Run Rd)	
Quadrangle:	Blacksville, WV	Generally used farm name:	Cummins	
Watershed:	Dunkard Creek			
	Shall Include:	on shall include the name add		
facsimile nur related to ho	mber and electronic mail address of the operarizontal drilling may be obtained from the Section 57 th Street, SE, Charleston, WV 25304 (304-4)	ator and the operator's authorized retary, at the WV Department of	of Environmental Protection headquarters,	
facsimile nur related to ho located at 60	nber and electronic mail address of the operational drilling may be obtained from the Sec	ator and the operator's authorized retary, at the WV Department of	ed representative. Additional information of Environmental Protection headquarters,	
facsimile nur related to ho located at 60 Notice is he	mber and electronic mail address of the operatizontal drilling may be obtained from the Section 57 th Street, SE, Charleston, WV 25304 (304-ceby given by:	ator and the operator's authorized retary, at the WV Department of	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.	
facsimile nur related to ho located at 60 Notice is he Well Operato	reby given by: Northeast Natural Energy LLC 707 Virginia Street E., Suite 1200 RECEIVED	ator and the operator's authorize retary, at the WV Department of 926-0450) or by visiting www.de Authorized Representative: Address:	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx.	
facsimile nur related to ho located at 60 Notice is he Well Operato	mber and electronic mail address of the operatizontal drilling may be obtained from the Section of Street, SE, Charleston, WV 25304 (304-17) reby given by: Northeast Natural Energy LLC	ator and the operator's authorize retary, at the WV Department of 926-0450) or by visiting www.de Authorized Representative: Address:	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Hollie Medley, Regulatory Manager	
facsimile nur related to ho located at 60 Notice is he Well Operate Address:	reby given by: Northeast Natural Energy LLC 707 Virginia Street E., Suite 1200 RECEIVED	ator and the operator's authorize retary, at the WV Department of 926-0450) or by visiting www.de Authorized Representative: Address:	ed representative. Additional information of Environmental Protection headquarters, ep.wv.gov/oil-and-gas/pages/default.aspx. Hollie Medley, Regulatory Manager 48 Donley Street, Suite 601	
facsimile nur related to ho located at 60	reby given by: Northeast Natural Energy LLC 707 Virginia Street E., Suite 1200 Charleston, WV 25301 Office of Oil and General Control of the operation of t	ator and the operator's authorize retary, at the WV Department of 926-0450) or by visiting		

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

WW-6A5 (1/12)

Operator Well No. Cummins 18H

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Jalinamı mat	hod pursuant to West Virginia C	oda 8 22 64 16(a)		
belivery mei	nod pursuant to west virginia C	ode § 22-6A-16(c)		
CERTIF	FIED MAIL	☐ HAND		
	EN RECEIPT REQUESTED	DELIVERY		
eturn receipt he planned of equired to be trilling of a lamages to the d) The notice of notice is here	requested or hand delivery, give the peration. The notice required by provided by subsection (b), section orizontal well; and (3) A propose a surface affected by oil and gas of as required by this section shall be be provided to the SURFACE of listed in the records of the sheriff	ne surface owner whose land this subsection shall incluse the new of this article to a surface use and compen- perations to the extent the di- given to the surface owner of	d will be used for de: (1) A copy face owner whose sation agreement amages are compat the address list	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter. sted in the records of the sheriff at the time
Address: 74 St Fairvie	w, WV 26570 Pby given:		S:	
Address: 74 St Fairvie Notice is here	eby given: fest Virginia Code § 22-6A-16(c),	notice is hereby given that t	he undersigned	well operator has developed a planned
ddress: 74 St Fairvie Notice is here ursuant to W peration on	w, WV 26570 Pby given:	notice is hereby given that the	he undersigned	well operator has developed a planned
Address: 74 Standards Fairvier	w, WV 26570 Seby given: Sest Virginia Code § 22-6A-16(c), so Standard Standard for the pure of the	notice is hereby given that t	he undersigned	well operator has developed a planned a follows:
Address: 74 St Fairvie Notice is here tursuant to W peration on tate: County:	w, WV 26570 Problem 20	notice is hereby given that the prose of drilling a horizonta UTM NAD &	he undersigned of the trace of the lasting: Northing: Access:	well operator has developed a planned act of land as follows: 570286.3
Address: 74 Starvie Notice is here Pursuant to W peration on state: County: District:	eby given: est Virginia Code § 22-6A-16(c), the surface owner's land for the pu West Virginia Monongalia	notice is hereby given that the prose of drilling a horizonta UTM NAD &	he undersigned all well on the tra Easting:	well operator has developed a planned act of land as follows: 570286.3 4390563.7
Address: 74 St Fairvie Notice is here Pursuant to W operation on State: County; District: Quadrangle:	eby given: est Virginia Code § 22-6A-16(c), the surface owner's land for the put West Virginia Monongalia Clay	notice is hereby given that the prose of drilling a horizonta UTM NAD &	he undersigned of the trace of the lasting: Northing: Access:	well operator has developed a planned act of land as follows: 570286.3 4390563.7 County Route 25/3 (Yank Hollow Road)
Notice is here Pursuant to W peration on State: County: District: Quadrangle: Vatershed: This Notice S Pursuant to W o be provide porizontal we urface affect information or second in the second in	eby given: Fest Virginia Code § 22-6A-16(c), the surface owner's land for the put West Virginia Monongalia Clay Mannington Dunkard Creek Cest Virginia Code § 22-6A-16(c), d by W. Va. Code § 22-6A-10(b), ll; and (3) A proposed surface use ed by oil and gas operations to the lated to horizontal drilling may be located at 601 57th Street, SE,	notice is hereby given that the prose of drilling a horizontal UTM NAD & Public Road Generally us this notice shall include: (1) to a surface owner whose and compensation agreement extent the damages are compensation the Secretary of the secret	he undersigned at well on the transition in the transition in the transition in the transition in the undersignment in the transition in the undersignment in the work are the work in the undersignment in the work in the wo	well operator has developed a planned act of land as follows: 570286.3 4390563.7 County Route 25/3 (Yank Hollow Road) Cummins code section; (2) The information required used in conjunction with the drilling of a noffer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection
Notice is here fursuant to W peration on tate: County: District: Quadrangle: Vatershed: Vatershed: Virsuant to W o be provide orizontal we urface affect information re eadquarters, as/pages/defi	eby given: Test Virginia Code § 22-6A-16(c), the surface owner's land for the put West Virginia Monongalia Clay Mannington Dunkard Creek Chall Include: Test Virginia Code § 22-6A-16(c), d by W. Va. Code § 22-6A-10(b) ll; and (3) A proposed surface use ed by oil and gas operations to the lated to horizontal drilling may blocated at 601 57th Street, SE, ault.aspx.	this notice shall include: (1) to a surface owner whose and compensation agreement extent the damages are one obtained from the Secret Charleston, WV 25304	he undersigned all well on the trace Easting: Northing: Access: ed farm name:)A copy of thise land will be understontaining arompensable undersy, at the WV (304-926-0450)	well operator has developed a planned act of land as follows: 570286.3 4390563.7 County Route 25/3 (Yank Hollow Road) Cummins code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the der article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-
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duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

Diffice of Oil and Gas

FEB 1 1 2020

WV Department of Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

February 15, 2019

Thomas J. Smith, P. E. Secretary of Transportation/ Commissioner of Highways

Jill M. Newman Deputy Commissioner

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the Cummins Pad, Monongalia County

Cummins 18H

Dear Mr. Martin,

This well site will be accessed from a permit #04-2014-0914 issued to Northeast Natural Energy Corporation for access to the State Road for a well site located off of Monongalia Route 25/3 SLS.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY revised October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Day K. Clayton

Cc: Kristen Brooks

Northeast Natural Energy Corporation

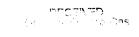
CH, OM, D-4

File

RECEIVED

FFB 1 1 2020

WV Department of _nvironmental Protection



FED = 1 1 2 0

Planned Additives to be used in Fracturing Stimulations

WW/Department of

Trade Name ironmental Protection	Purpose	Ingredients	Cemical Abstract Service Numner (CAS#)
Water	Carrier	Water	7732-18-5
HCI, 10.1-15%	Acidizing	Hydrochloric Acid Water	7647-01-0 7732-18-5
Alpha 1427	Biocide	Alkyl Dimethyl Benzyl Ammonium Chloride (C12-16) Ethanol Glutaraldehyde Quaternary Ammonium Chloride Water	68424-85-1 64-17-5 111-30-8 7173-51-5 7732-18-5
Enzyme G-NE	Breaker	Hemicellulase Enzyme Concentrate Water	9025-56-3 7732-18-5
Cl-14	Corrosion Inhibitor	Fatty Acids Methanol Olefin Polyozyalkylenes Propargyl Alcohol	NA 67-56-1 NA NA 107-19-7
GW-3LDF	Gelling Agent	Guar Gum Petroleum Distillate Blend	9000-30-0 CBI
FRW-18	Friction Reducer	Hydrotreated Light Distillate	64742-47-8
Ferrotrol 300L	Iron Crontrol	Citric Acid	77-92-9
Sand, White, 40/70	Proppant	Cystalline Silica (Quartz)	14808-60-7
Sand, White, 100 mesh	Proppant	Cystalline Silica (Quartz)	14808-60-7
Scaletrol 720	Scale Inhibitor	Diethylene Glycol	111-46-6

WV Department of Environmental Protection

WEST VIRGINIA 811

TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR MUST CONTACT THE WV ONE CALL SYSTEM, INC., 1-800-245-4848 (WV ONE CALL TICKET#1731378158)

OWNER



NORTHEAST NATURAL ENERGY, LLC 707 VIRGINIA STREET SUITE 1200 CHARLESTON, WV 253 01

BROOKE

WEIZEL

GREEN BRIER

FAYETTE

MERCER

CABELL

LINCOLN

LOGAN

WYOMING

MCDOWELL

APPROVED
WVDEP OOG
WALL 1/24/2019

W/2/1 1/24/2019

PRESSANTS, TYLER

MARION

PRESTON

MINERAL HAMPSHIRE

WOOD

RITCHE

RIDGE

BARBOUS

TUCKES

GRANT

HARDY

HARDY

IN ACCORDANCE WITH WV 35 CSR 8

THE FOLLOWING EROSION & SEDIMENT CONTROL PLAN

KANAWHA

NICHOLAS

POCAHONTASS

POCAHONTASS

POCAHONTASS

SEDIMENT CONTROL PLAN

ESTABLISHED BY THE CHIEF AND PROVIDED IN THE OFFICE

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REVISIONS

* PROJECT LOCATION

THE FOLLOWING EROSION & SEDIMENT CONTROL PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES ESTABLISHED BY THE CHIEF AND PROVIDED IN THE OFFICE'S EROSION AND SEDIMENT CONTROL FIELD MANUAL. A GENERAL CONSTRUCTION SEQUENCE, DESCRIPTION OF STABILIZATION METHODS, AND DETAILS & SPECIFICATIONS FOR EROSION & SEDIMENT BEST MANAGEMENT PRACTICES HAVE BEEN INCLUDED IN THE PROVIDED DETAIL SHEETS.

TITLE SHEET

CUMMINS WELL PAD CLAY DISTRICT, MONONGALIA COUNTY, WV

CUMMINS WELL PAD CLAY DISTRICT, MONONGALIA COUNTY, WV OCTOBER 2018

SHEET INDEX 1. TITLE SHEET

2-3. EVACUATION ROUTE/PREVAILING WIND
4. E&S CONTROL LAYOUT OVERVIEW
5-11. E&S CONTROL LAYOUT
12. E&S CONTROL AND SITE PLAN OVERVIEW
13-14. E&S CONTROL AND SITE PLAN

12. E&S CONTROL AND SITE PLAN OVERVIEW

13-19. E&S CONTROL AND SITE PLAN

20. WELL PAD CROSS-SECTIONS AND UNDER DRAIN
PROFILES

21. KASSAY ACCESS ROAD PROFILE 22. CUMMINS ACCESS ROAD PROFILE 23-24. KASSAY ACCESS ROAD CROSS-SECTIONS 25-31. CUMMINS ACCESS ROAD CROSS-SECTIONS 32-34. DETAILS

> 35. RECLAMATION PLAN OVERVIEW 36-42. RECLAMATION PLAN

TOTAL PROJECT BOUNDARY: 54.47 AC.
TOTAL LIMITS OF DISTURBANCE: 40.42 AC.
ACCESS ROAD DISTURBANCE AREA: 28.43 AC.
WELL PAD DISTURBANCE AREA: 11.99 AC.

PROPERTY PROJECT BOUNDARY ACREAGE

GEORGE F. McCOY & PATRICIA EDDY (TAX MAP AND PARCEL 04-17-55): 0.06 AC.

SAMUEL W & STACEY I MATTEO (TAX MAP AND PARCEL 04-17-59): 6:71 AC.

PATTY ANN KASSAY (TAX MAP AND PARCEL 04-17-48): 8.24 AC.

PRECISION OIL AND GAS INC. (TAX MAP AND PARCEL 04-17-62): 5:63 AC.

BERNICE TENNANT (TAX MAP AND PARCEL 04-17-63): 0.04 AC.

JERRY LAND AUBRA ERROL. YOST (TAX MAP AND PARCEL 04-17-63): 0.04 AC.

JERRY LAND AUBRA ERROL. YOST (TAX MAP AND PARCEL 04-17-11: 12.22 AC.

JERRY LOST ET AL (TAX MAP AND PARCEL 04-17-11: 12.22 AC.

PLANS PREPARED BY:

BOORD BENCHEK & ASSOCIATES, INC.

ENGINEERING, SURVEYING, CONSTRUCTION AND MINING SERVICES SOUTHPOINTE, PA 15317 PHONE: 724-746-1055



10-22-18

ANDREW BENCHEK

P.E.

To the second se

COORDINATES

CENTER OF WELLS (NAD 83) LAT: 39° 39' 43.15" LONG: 80° 10' 51.01" (NAD 27) LAT: 39° 39' 42.86" LONG: 80° 10' 51.74"

SITE ENTRANCE (NAD 83) LAT: 39° 39' 06.92" LONG: 80° 11' 57.82" (NAD 27) LAT: 39° 39' 06.63" LONG: 80° 11' 58.55"

1"=2000



SHEET OF 42

WV

