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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Tuesday, February 25, 2020  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

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

Re: Permit Modification Approval for MCCLELLAN 9H  
47-061-01820-00-00

Modified Lateral for a TMD of 23,846'.

NORTHEAST NATURAL ENERGY LLC

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

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

A blue ink signature of James A. Martin, written in a cursive style.

James A. Martin  
Chief

Operator's Well Number: MCCLELLAN 9H  
Farm Name: ALYCEMARIE MCCLELLAN & MICHELLE D. MC  
U.S. WELL NUMBER: 47-061-01820-00-00  
Horizontal 6A New Drill  
Date Modification Issued: February 25, 2020

Promoting a healthy environment.

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

1) Well Operator: Northeast Natural Energy LLC 494498281 Monongalia Battelle Mannington  
Operator ID County District Quadrangle

2) Operator's Well Number: McClellan 9H Well Pad Name: McClellan

3) Farm Name/Surface Owner: McClellan Public Road Access: SR 15/7 (Harvey Run Road)

4) Elevation, current ground: 1,440' Elevation, proposed post-construction: 1,408.6'

5) Well Type (a) Gas X Oil NA Underground Storage NA  
Other NA

(b) If Gas Shallow \_\_\_\_\_ Deep X  
Horizontal X *MJK 1/27/2020*

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Pilot: Oriskany, Horizontal: Marcellus; Pilot: 8,400', Horizontal: 8,160'; 103', 3600 PSI

8) Proposed Total Vertical Depth: Pilot: 8,400'; Horizontal: 8,160'

9) Formation at Total Vertical Depth: Pilot: Oriskany; Horizontal: Marcellus

10) Proposed Total Measured Depth: 23,846'

11) Proposed Horizontal Leg Length: 14,874'

12) Approximate Fresh Water Strata Depths: 50'; 1,122'

13) Method to Determine Fresh Water Depths: DRILLERS LOG FROM OFFSET WELLS

14) Approximate Saltwater Depths: 1,820'; 2,570'

15) Approximate Coal Seam Depths: 190'; 1,107'

16) Approximate Depth to Possible Void (coal mine, karst, other): NA

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

(a) If Yes, provide Mine Info: Name: Marion County Coal Company Mine  
Depth: 1,107'  
Seam: Pittsburgh  
Owner: Murray Energy Corporation & Consolidation Coal Company

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18)

**CASING AND TUBING PROGRAM**

<b>TYPE</b>	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	24"	New	NA	94.71	40'	40'	GTS
Fresh Water	13-3/8"	New	J-55	54.5	1,230'	1,200'	CTS
Coal					NA	NA	
Intermediate	9-5/8"	New	J-55	40	2,680'	2,650'	CTS
Production	5-1/2"	New	P-110	20	23,846'	23,816'	5,645 Cu. Ft.
Tubing	2-3/8"	New	P-110	4.7	NA	8,500'	NA
Liners							

*MJK 1/27/2020*

<b>TYPE</b>	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	24"	30"	.375"	415		4,500 psi Grout	NA
Fresh Water	13-3/8"	17 1/2"	.38"	2,760	2,000	Class A	1.23
Coal							
Intermediate	9-5/8"	12 1/4"	.395"	3,950	3,000	Class A	1.3
Production	5-1/2"	8 3/4"	.361"	12,530	9,700	50:50 Poz	1.21
Tubing	2-7/8"	NA	.217"	10,570	3,600	NA	NA
Liners							

**PACKERS**

Kind:				
Sizes:				
Depths Set:				

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

Drilling and completion of a horizontal Marcellus well. The well will be drilled on air to an approximate depth of 6,749' TVD/MD. A pilot hole will then be drilled on synthetic based mud to an approximate depth of 8,400' and plugged back with solid cement to the KOP. The well will then be horizontally drilled on synthetic based mud from the KOP to approximately 8,160' TVD / 23,846' MD along a 326 degree 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): N/A

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

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 Class A + Max 3% bwoc Calcium Chloride Fresh Water blend. Intermediate string cement will be a Class A 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.

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61-01820400

# NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV  
 Field: Monongalia  
 Facility: McClellan Pad  
 Well: McClellan 9H ST01 PWB

Slot: Slot 9H  
 Well: McClellan 9H ST01 PWB  
 Wellbore: McClellan 9H ST01 PWB  
 Well: McClellan 9H ST01 PWB

### Location Information

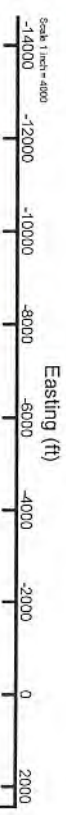
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
McClellan Pad	1749185.000	409495.900	39°37'18.0211"N	80°16'42.9188"W
Slot Local N (ft)	Local E (ft)	Grid East (US ft)	Latitude	Longitude
Slot 9H 36.89	-23.97	1749161.030	39°37'18.3805"N	80°16'43.2290"W
Pattern 334 (KB) to Ground level (At Slot: Slot 9H)			25ft	-1411ft
Mean Sea Level to Ground level (At Slot: Slot 9H)				1436ft

Formation	Depth (KBTV)D
Genesee	7886
Tully	7914
Hamilton	7964
Upper Marcellus	8072
Cherry Valley	8115
Lower Marcellus	8120
Onondaga	8175

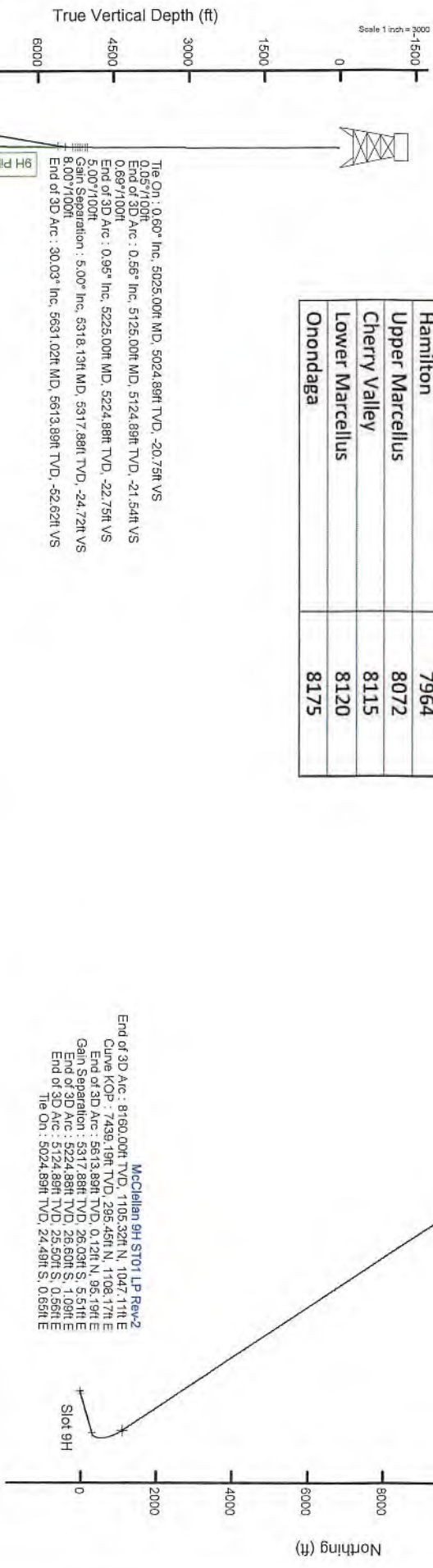


### Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Start TVD (ft)	End TVD (ft)	Start L (ft)	End L (ft)	Wellbore
Zen Conductor	25.00	50.00	25.00	50.00	0.00	0.00	McClellan 9H ST01 PWB
175ft Open Hole	50.00	125.00	110.00	125.00	-0.02	-0.02	McClellan 9H ST01 PWB
1337ft Casing Gauge	125.00	125.00	1103.00	125.00	0.00	0.00	McClellan 9H ST01 PWB
1220ft Open Hole	125.00	320.00	1200.00	1219.99	-2.95	-2.95	McClellan 9H ST01 PWB
6425ft Casing Intermediate	320.00	290.00	290.00	290.00	0.00	0.00	McClellan 9H ST01 PWB
6.5ft Open Hole	290.00	290.00	290.00	290.00	-12.40	-12.40	McClellan 9H ST01 PWB
6.5ft Open Hole	290.00	290.00	290.00	290.00	-12.40	-12.40	McClellan 9H ST01 PWB
6.5ft Open Hole	290.00	290.00	290.00	290.00	-12.40	-12.40	McClellan 9H ST01 PWB



McClellan 9H ST01 BHL Rev-2  
 BHL: 8160.00ft TVD, 13490.94ft N, 7190.57ft W



The On: 0.60° Inc. 5025.00ft MD, 5024.88ft TVD, -20.75ft VS  
 End of 3D Arc: 0.56° Inc. 5125.00ft MD, 5124.88ft TVD, -21.54ft VS  
 End of 3D Arc: 0.95° Inc. 5225.00ft MD, 5224.88ft TVD, -22.75ft VS  
 End of 3D Arc: 5.00° Inc. 5318.13ft MD, 5317.88ft TVD, -24.72ft VS  
 Gain Separation: 5.00° Inc. 5631.02ft MD, 5631.02ft TVD, -52.62ft VS  
 The On: 0.60° Inc. 5025.00ft MD, 5024.88ft TVD, -20.75ft VS  
 End of 3D Arc: 0.56° Inc. 5125.00ft MD, 5124.88ft TVD, -21.54ft VS  
 End of 3D Arc: 0.95° Inc. 5225.00ft MD, 5224.88ft TVD, -22.75ft VS  
 End of 3D Arc: 5.00° Inc. 5318.13ft MD, 5317.88ft TVD, -24.72ft VS  
 Gain Separation: 5.00° Inc. 5631.02ft MD, 5631.02ft TVD, -52.62ft VS

McClellan 9H ST01 LP Rev-2  
 End of 3D Arc: 30.03° Inc. 7739.35ft MD, 7439.19ft TVD, -367.73ft VS  
 McClellan 9H ST01 BHL Rev-2  
 BHL: 8160.00ft TVD, 13490.94ft N, 7190.57ft W

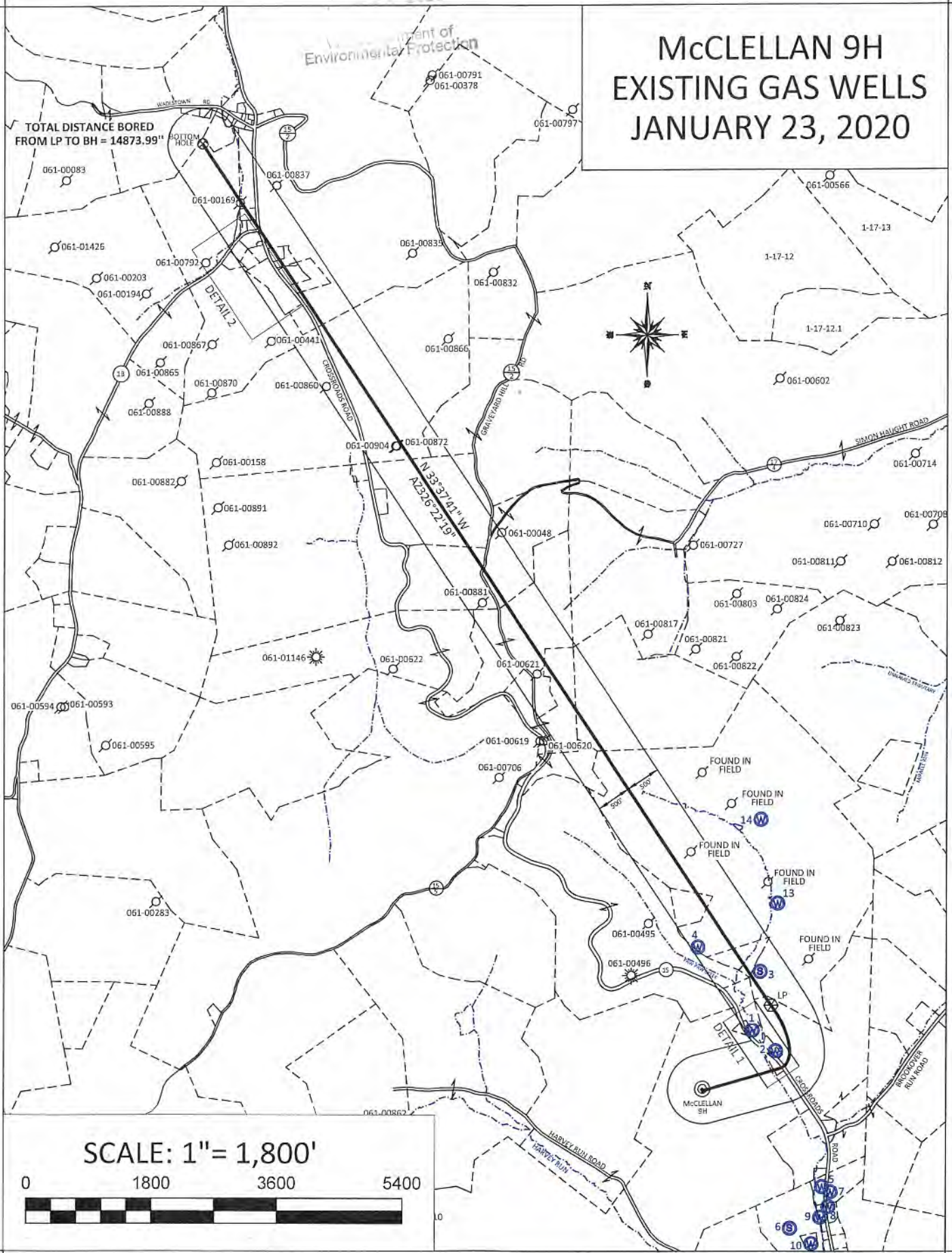
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61-01820

Department of Environmental Protection

# McCLELLAN 9H EXISTING GAS WELLS JANUARY 23, 2020

TOTAL DISTANCE BORED  
FROM LP TO BH = 14873.99'



SCALE: 1" = 1,800'



WELL: McCLELLAN 9H  
QUAD: MANNINGTON, WV



CROSSROADS  
TOTAL DISTANCE BORED  
FROM LP TO BH = 14873.99'

N 33° 37' 41" W  
A 326° 22' 19"

WADESTOWN QUAD  
MANNINGTON QUAD

E L L E

MONONGALIA CO  
MARION CO



GRAPHIC SCALE 1" = 2,000'



## McClellan 9H Area of Review

API Number	Well Name	Well Number	Operator	Latitude (NAD 27)	Longitude (NAD 27)	TMP	Comments
061-00621	W E Swisher/C Anderson	3	Consolidation Coal Co.	39.638036	-80.287308	1-24-13.1	Plugged 3/27/1981
061-00881	John Mason	NA	Eastern Associated / Peabody Coal Company	39.640791	-80.290123	1-24-3	Plugged 9/30/1988
061-00872	NA	NA	NA	39.646774	-80.294799	1-17-9	Plugged - 2/6/1989
061-00904	Joseph S Carrothers	NA	Pennzoil Company	39.646881	-80.294655	1-17-9	Plugged - 2/6/1989
061-00860	Joseph S Carrothers	2	Eastern Associated / Peabody Coal Company	39.649202	-80.298219	1-17-9.1	Plugged - 3/31/1988
FOUND IN FIELD	NA	NA	NA	39.638193	-80.286957	1-24-13.1	NA
FOUND IN FIELD	NA	NA	NA	39.633644	-80.282461	1-24-20	NA
FOUND IN FIELD	NA	NA	NA	39.631099	-80.279404	1-24-20	NA

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WV Department of  
Environmental Protection



WW-6A1  
(5/13)

Operator's Well No. McClellan 9H

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

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

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

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

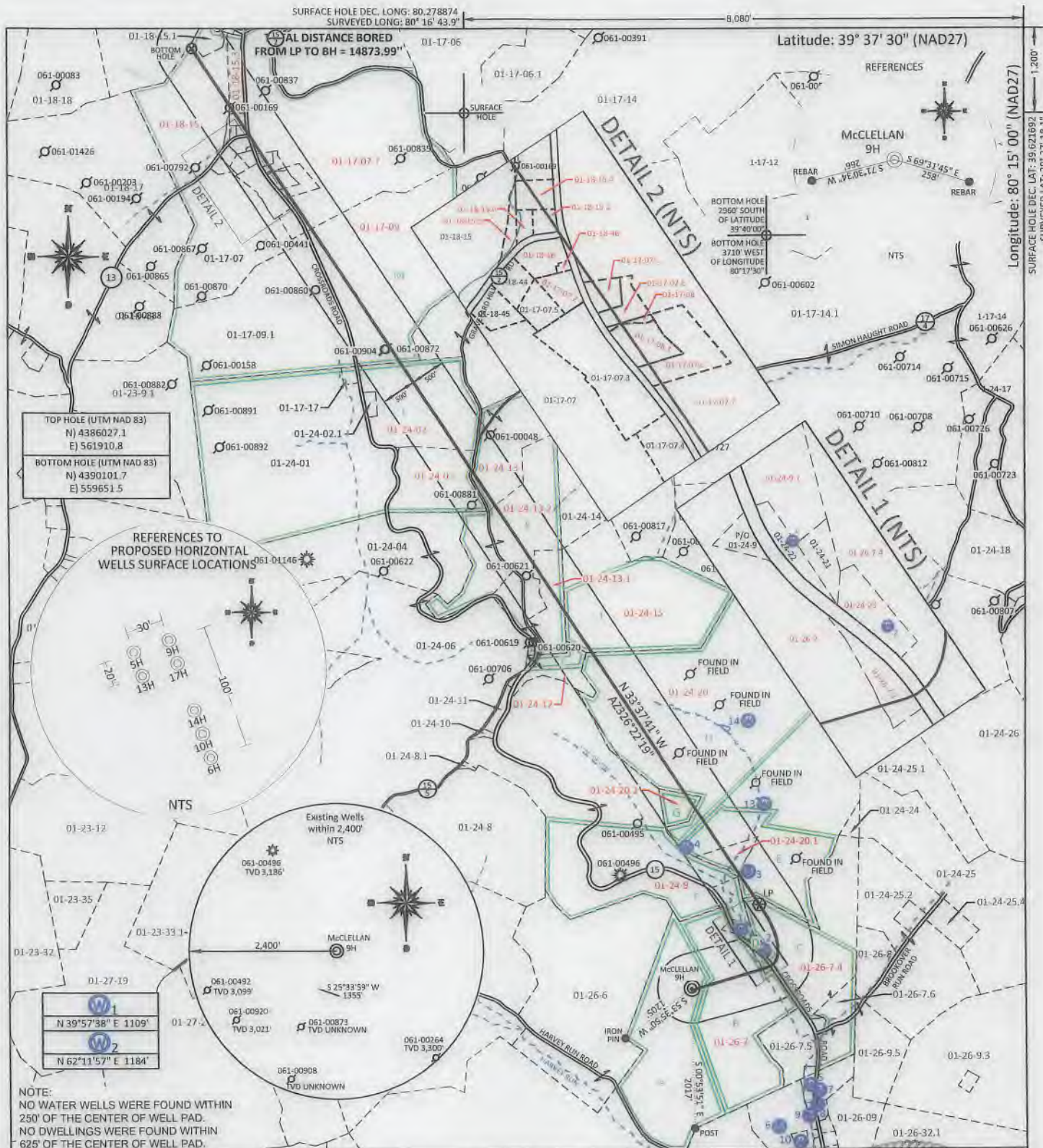
Tract ID	NNE LEASE NUMBER	LESSOR NAME	LESSEE NAME	ROYALTY	BOOK/	PAGE
A	WV 061 004172 001	Barbara June Sutton	Northeast Natural Energy LLC	0.125 or Greater	1560	233
	WV 061 004172 011	Jerry D. Atwood and Shirley L. Atwood	Northeast Natural Energy LLC	0.125 or Greater	1568	137
	WV 061 004172 054	Linda Austin	Northeast Natural Energy LLC	0.125 or Greater	1578	385
	WV 061 004172 068	Larry S. Barr	Northeast Natural Energy LLC	0.125 or Greater	1581	297
	WV 061 004172 055	Michael P. Barr	Northeast Natural Energy LLC	0.125 or Greater	1578	387
	WV 061 004172 061	Patrick C. Barr	Northeast Natural Energy LLC	0.125 or Greater	1579	232
	WV 061 004172 021	Danielle S. Blalock	Northeast Natural Energy LLC	0.125 or Greater	1570	350
	WV 061 004172 017	Maxine G. Morton, f/k/a Maxine G. Sutton, Life Estate Interest	Northeast Natural Energy LLC	0.125 or Greater	1567	497
	WV 061 004172 028	Claudia Brown	Northeast Natural Energy LLC	0.125 or Greater	1573	5
	WV 061 004172 092	Deena Brown	Northeast Natural Energy LLC	0.125 or Greater	1590	331
	WV 061 004172 015	Garold L. Brown and Mary P. Brown	Northeast Natural Energy LLC	0.125 or Greater	1565	727
	WV 061 004172 099	Douglas E. Browning and Denise Browning	Northeast Natural Energy LLC	0.125 or Greater	1592	617
	WV 061 004172 004	Peggy Lee Burchett and John Burchett	Northeast Natural Energy LLC	0.125 or Greater	1566	353
	WV 061 004172 013	Eleanor Carroll	Northeast Natural Energy LLC	0.125 or Greater	1565	734
	WV 061 004172 060	Lisa D. Carroll	Northeast Natural Energy LLC	0.125 or Greater	1579	229
	WV 061 004172 104	Erin Chacon	Northeast Natural Energy LLC	0.125 or Greater	1595	421
	WV 061 004172 014	Patricia S. Christian and Clayton Christian	Northeast Natural Energy LLC	0.125 or Greater	1565	729
	WV 061 004172 094	Robin Cornett	Northeast Natural Energy LLC	0.125 or Greater	1591	138
	WV 061 004172 081	Becki L. Deskin	Northeast Natural Energy LLC	0.125 or Greater	1585	266
	WV 061 004172 039	Rodona A. Dunfee	Northeast Natural Energy LLC	0.125 or Greater	1575	457
	WV 061 004172 067	Debra C. Edwards	Northeast Natural Energy LLC	0.125 or Greater	1580	574
	WV 061 004172 103	Maria Evanoff and Dusty Evanoff	Northeast Natural Energy LLC	0.125 or Greater	1595	263
	WV 061 004172 072	John Fincke	Northeast Natural Energy LLC	0.125 or Greater	1581	315
	WV 061 004172 065	Linda S. Frankford	Northeast Natural Energy LLC	0.125 or Greater	1580	46
	WV 061 004172 036	Coralee Garrett	Northeast Natural Energy LLC	0.125 or Greater	1575	292
	WV 061 004172 023	Robert A. Garrett	Northeast Natural Energy LLC	0.125 or Greater	1570	356
	WV 061 004172 040	Ruth A. Garrett	Northeast Natural Energy LLC	0.125 or Greater	1575	497
	WV 061 004172 034	William D. Garrett and Linda Garrett	Northeast Natural Energy LLC	0.125 or Greater	1575	288
	WV 061 004172 100	Avis Anita Gilpin Adkins	Northeast Natural Energy LLC	0.125 or Greater	1593	672
	WV 061 004172 046	Sharon K. Gustina and John Gustina	Northeast Natural Energy LLC	0.125 or Greater	1577	39
	WV 061 004172 108	James Hawk, and His Unknown, Missing, and Abandoning Heirs, Successors, or Assigns, by Robert Shuman Esquire Special Commissioner	Northeast Natural Energy LLC	0.125 or Greater	1616	495
	WV 061 004172 095	Kevin Hawk	Northeast Natural Energy LLC	0.125 or Greater	1598	375
	WV 061 004172 106	Billie J. Hodges, fka Billie J. Hawk	Northeast Natural Energy LLC	0.125 or Greater	1600	75
	WV 061 004172 098	Steven Hawk and Marcia H. Hawk	Northeast Natural Energy LLC	0.125 or Greater	1592	615
	WV 061 004172 031	Dorothy Mae Johnson	Northeast Natural Energy LLC	0.125 or Greater	1575	254
	WV 061 004172 035	Donna Jean Kelley	Northeast Natural Energy LLC	0.125 or Greater	1575	290
	WV 061 005411 108	Jerry Lee Johnson	Northeast Natural Energy LLC	0.125 or Greater	1670	120
	WV 061 005411 107	James A. Johnson	Northeast Natural Energy LLC	0.125 or Greater	1670	88
	WV 061 004172 035	Donna M. Kelley	Northeast Natural Energy LLC	0.125 or Greater	1575	290

Tract ID	NNE LEASE NUMBER	LESSOR NAME	LESSEE NAME	ROYALTY	BOOK/	PAGE
	WV 061 004172 087	Kelley Kueck	Northeast Natural Energy LLC	0.125 or Greater	1589	230
	WV 061 004172 032	Patti L. Leasure	Northeast Natural Energy LLC	0.125 or Greater	1575	256
	WV 061 004172 006	Cindy Russell Lee	Northeast Natural Energy LLC	0.125 or Greater	1566	357
	WV 061 004172 030	Cynthia K. Leininger	Northeast Natural Energy LLC	0.125 or Greater	1575	284
	WV 061 004172 008	Tamaree Beatrice Littlefield	Northeast Natural Energy LLC	0.125 or Greater	1566	375
	WV 061 004172 043	Constance Louthen	Northeast Natural Energy LLC	0.125 or Greater	1575	716
	WV 061 004172 044	William D. Louthen Jr.	Northeast Natural Energy LLC	0.125 or Greater	1575	718
	WV 061 004172 022	Erick C. Malmgren	Northeast Natural Energy LLC	0.125 or Greater	1570	352
	WV 061 004172 056	Joyce L. Masser	Northeast Natural Energy LLC	0.125 or Greater	1578	389
	WV 061 004172 057	Keith A. Myers and Carol Myers	Northeast Natural Energy LLC	0.125 or Greater	1579	234
	WV 061 004172 053	Patrick K. Myers	Northeast Natural Energy LLC	0.125 or Greater	1578	379
	WV 061 004172 007	Karen A. Palencar	Northeast Natural Energy LLC	0.125 or Greater	1566	381
	WV 061 004172 059	Paula L. Picon	Northeast Natural Energy LLC	0.125 or Greater	1579	227
	WV 061 004172 018	Karen Anita Powers, Remainder Interest	Northeast Natural Energy LLC	0.125 or Greater	1567	499
	WV 061 004172 052	Frances C. Richie and Clifford F. Richie	Northeast Natural Energy LLC	0.125 or Greater	1578	375
	WV 061 004172 005	David Harold Russell and Pamela Russell	Northeast Natural Energy LLC	0.125 or Greater	1566	355
	WV 061 004172 009	Iris J. Russell	Northeast Natural Energy LLC	0.125 or Greater	1566	385
	WV 061 004172 016	Paulette A. Sawvel	Northeast Natural Energy LLC	0.125 or Greater	1567	495
	WV 061 004172 085	Todd E. Long and Kathy Long	Northeast Natural Energy, LLC	0.125 or Greater	1587	288
	WV 061 004172 033	Barbara A. Stover and Jack Stover	Northeast Natural Energy LLC	0.125 or Greater	1575	286
	WV 061 004172 001	Barbara June Sutton	Northeast Natural Energy LLC	0.125 or Greater	1560	233
	WV 061 004172 019	Dave Sutton and Alison Sutton, Remainder Interest	Northeast Natural Energy LLC	0.125 or Greater	1570	346
	WV 061 004172 002	Douglas B. Sutton	Northeast Natural Energy LLC	0.125 or Greater	1560	235
	WV 061 004172 051	Judy K. Sutton	Northeast Natural Energy LLC	0.125 or Greater	1578	373
	WV 061 004172 003	Stephen R. Sutton and Barbara H. Sutton	Northeast Natural Energy LLC	0.125 or Greater	1560	237
	WV 061 004172 073	Barbara Uhrig	Northeast Natural Energy LLC	0.125 or Greater	1581	317
	WV 061 004172 012	Darlene W. Vorhies	Northeast Natural Energy LLC	0.125 or Greater	1565	736
	WV 061 004172 083	Jeremy B. Watson	Northeast Natural Energy LLC	0.125 or Greater	1586	540
	WV 061 004172 102	Kevin P. Watson	Northeast Natural Energy LLC	0.125 or Greater	1593	675
	WV 061 004172 010	Debra S. Wells	Northeast Natural Energy LLC	0.125 or Greater	1568	135
	WV 061 004172 064	Jack Williams	Northeast Natural Energy LLC	0.125 or Greater	1580	44
	WV 061 004172 066	James A. Williams	Northeast Natural Energy LLC	0.125 or Greater	1580	48
	WV 061 004172 069	Jaye Ann Williams	Northeast Natural Energy LLC	0.125 or Greater	1581	299
	WV 061 004172 070	Jennifer Williams	Northeast Natural Energy LLC	0.125 or Greater	1581	301
	WV 061 004172 047	Charles A. Winland	Northeast Natural Energy LLC	0.125 or Greater	1577	41
	WV 061 004172 048	Thomas L. Winland and Martha Winland	Northeast Natural Energy LLC	0.125 or Greater	1577	43
	WV 061 004172 071	William B. Winland	Northeast Natural Energy LLC	0.125 or Greater	1581	313
	WV 061 004172 082	Ora K. Yarbrough aka Katie Yarbrough	Northeast Natural Energy LLC	0.125 or Greater	1585	268
B	WV 061 000109 002 LA	XTO Energy Inc.	Northeast Natural Energy LLC	0.125 or Greater	1620	424
C & D	WV 061 000109 002 LA	XTO Energy Inc.	Northeast Natural Energy LLC	0.125 or Greater	1620	424
E	WV 061 004223 001	Mary C. Walls	Northeast Natural Energy LLC	0.125 or Greater	1568	394
	WV 061 004332 003	Rosalea T. Vacher aka Olive Rosalie Vasher	Northeast Natural Energy LLC	0.125 or Greater	1638	777
	WV 061 004655 001	Sadie Ice Tennant	Northeast Natural Energy LLC	0.125 or Greater	1600	604
	WV 061 004149 011	Juanita May Merico	Northeast Natural Energy LLC	0.125 or Greater	1568	779

Tract ID	NNE LEASE NUMBER	LESSOR NAME	LESSEE NAME	ROYALTY	BOOK/	PAGE
	WV 061 004332 001	Tina Tennant Long	Northeast Natural Energy LLC	0.125 or Greater	1575	483
	WV 061 004332 002	Rebecca Butcher	Northeast Natural Energy LLC	0.125 or Greater	1575	485
	WV 061 003930 020	Mary Ann Dieroff	Northeast Natural Energy LLC	0.125 or Greater	1568	581
	WV 061 003930 018	Thomas R. Barnard	Northeast Natural Energy LLC	0.125 or Greater	1566	367
	WV 061 004187 001	Barbara Jo Wilkison	Northeast Natural Energy LLC	0.125 or Greater	1565	213
	WV 061 003930 027	Cynthia Lowther	Northeast Natural Energy LLC	0.125 or Greater	1566	589
	WV 061 003930 005	William J. Tennant	Northeast Natural Energy LLC	0.125 or Greater	1567	468
	WV 061 003930 015	Judi L. Mills	Northeast Natural Energy LLC	0.125 or Greater	1556	515
	WV 061 003930 024	Deborah K. Lowther	Northeast Natural Energy LLC	0.125 or Greater	1565	246
	WV 061 005174 001	Shannon Lowther	Northeast Natural Energy LLC	0.125 or Greater	1621	754
	WV 061 003930 008	Bernard R. Tennant	Northeast Natural Energy LLC	0.125 or Greater	1564	792
	WV 061 004604 001	Twyla E. Wright	Northeast Natural Energy LLC	0.125 or Greater	1596	767
	WV 061 003930 016	Janice Sue Fluharty	Northeast Natural Energy LLC	0.125 or Greater	1568	579
	WV 061 003930 013	Richard A. Tennant	Northeast Natural Energy LLC	0.125 or Greater	1564	260
	WV 061 003930 012	Judy Ann Pethel	Northeast Natural Energy LLC	0.125 or Greater	1566	456
	WV 061 003930 011	Betty Lou Fluharty	Northeast Natural Energy LLC	0.125 or Greater	1566	458
	WV 061 003930 017	Randall William Tennant	Northeast Natural Energy LLC	0.125 or Greater	1566	490
	WV 061 003930 007	Ricky Lee Satterfield	Northeast Natural Energy LLC	0.125 or Greater	1567	480
	WV 061 003930 014	Douglas Allen Satterfield	Northeast Natural Energy LLC	0.125 or Greater	1566	464
	WV 061 003930 022	Denise Michelle Romano	Northeast Natural Energy LLC	0.125 or Greater	1564	256
	WV 061 005105 002	Sharon J. Rogers-Moody	Northeast Natural Energy LLC	0.125 or Greater	1629	178
	WV 061 005275 005	Mark D. Rogers	Northeast Natural Energy LLC	0.125 or Greater	1629	294
	WV 061 005275 006	Michael Wayne Rogers	Northeast Natural Energy LLC	0.125 or Greater	1629	296
	WV 061 005275 004	Lyle Eugene Rogers, Jr.	Northeast Natural Energy LLC	0.125 or Greater	1629	292
	WV 061 005275 003	Shawn Eugene Rogers	Northeast Natural Energy LLC	0.125 or Greater	1629	290
	WV 061 005275 001	Larry Allen Rogers	Northeast Natural Energy LLC	0.125 or Greater	1629	286
	WV 061 004603 002	Marvin Keith Wilson	Northeast Natural Energy LLC	0.125 or Greater	1607	272
	WV 061 004381 001	Kevin D. Ammons	Northeast Natural Energy LLC	0.125 or Greater	1578	307
	WV 061 004149 012	Annetta A. Mayhew	Northeast Natural Energy LLC	0.125 or Greater	1580	572
	WV 061 004269 005	Edith Lorene Burns	Northeast Natural Energy LLC	0.125 or Greater	1580	580
	WV 061 004269 007	Marvin M. Mayhew	Northeast Natural Energy LLC	0.125 or Greater	1600	21
	WV 061 003930 021	William H. Tennant	Northeast Natural Energy LLC	0.125 or Greater	1567	266
	WV 061 004269 004	Daniel R. Tennant	Northeast Natural Energy LLC	0.125 or Greater	1575	228
	WV 061 004269 003	Kathryn Holcomb	Northeast Natural Energy LLC	0.125 or Greater	1572	790
	WV 061 003930 009	Simon A. Tennant II	Northeast Natural Energy LLC	0.125 or Greater	1567	470
	WV 061 004269 001	Stacey Tennant	Northeast Natural Energy LLC	0.125 or Greater	1570	713
F	WV 061 005560 003	Marilisa Yost	Northeast Natural Energy LLC	0.125 or Greater	1692	319
G	WV 061 004089 000	Craig M. Steele	Northeast Natural Energy LLC	0.125 or Greater	1560	239
H	WV 061 000113 001-LA	SWN Production Company, LLC	Northeast Natural Energy LLC	0.125 or Greater	1623	482
	WV 061 005460 001	Chesapeake Appalachia, LLC	SWN Production Company, LLC	0.125 or Greater	1512	206
	WV 061 005451 001	Equinor USA Onshore Properties, Inc.	Northeast Natural Energy LLC	0.125 or Greater	1640	801
I	WV 061 000113 001-LA	SWN Production Company, LLC	Northeast Natural Energy LLC	0.125 or Greater	1623	482
	WV 061 005460 001	Chesapeake Appalachia, LLC	SWN Production Company, LLC	0.125 or Greater	1512	206
	WV 061 005451 001	Equinor USA Onshore Properties	Northeast Natural Energy LLC	0.125 or Greater	1640	801

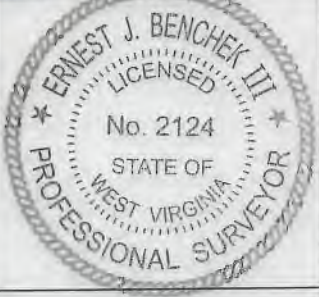
61-01820 MOD

Tract ID	NNE LEASE NUMBER	LESSOR NAME	LESSEE NAME	ROYALTY	BOOK/	PAGE
	WV 061 005460 001	James S. King	Northeast Natural Energy LLC	0.125 or Greater	1578	208
J	WV 061 004223 001	Mary C. Walls	Northeast Natural Energy LLC	0.125 or Greater	1568	394
K	WV 061 000113 001-LA	SWN Production Company, LLC	Northeast Natural Energy LLC	0.125 or Greater	1623	482
	WV 061 005460 001	Chesapeake Appalachia, LLC	SWN Production Company, LLC	0.125 or Greater	1512	206
	WV 061 005451 001	Equinor USA Onshore Properties	Northeast Natural Energy LLC	0.125 or Greater	1640	801
	WV 061 005460 001	Chesapeake Appalachia, LLC	SWN Production Company, LLC	0.125 or Greater	124	224
	WV 061 005460 001	James S. King	Chesapeake Appalachia, LLC	0.125 or Greater	1418	778
L	WV 061 000113 001-LA	SWN Production Company, LLC	Northeast Natural Energy LLC	0.125 or Greater	1623	482
	WV 061 005459 000	Chesapeake Appalachia, LLC	SWN Production Company, LLC	0.125 or Greater	124	224
	WV 061 005459 000	Nelson D. Gallagher and Cheryl L. Gallagher	Chesapeake Appalachia, LLC	0.125 or Greater	1422	207
M	WV 061 000317 001-LA	SWN Production Company, LLC	Northeast Natural Energy LLC	0.125 or Greater	1689	320
	WV 061 000317 001-LA	Chesapeake Appalachia, LLC	SWN Production Company, LLC	0.125 or Greater	1434	507



FILE #: NNE14  
 DRAWING #: 2850  
 SCALE: PLAF: 1" = 2000'  
TICK: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1/200  
 PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 Signed: [Signature]  
 L.L.S. #2124 : Ernest J. Benchek III



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 WYDEP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304

Well Type:  Oil  Waste Dposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: UPPER MONONGAHELA  
 COUNTY/DISTRICT: MONONGALIA / BATTLE  
 SURFACE OWNER: ALYCEMARIE MCCLELLAN & MICHELLE D. MOORE  
 OIL & GAS ROYALTY OWNER: Barbara June Sutton, et al  
 LEASE NUMBERS: \_\_\_\_\_

DATE: JANUARY 27, 2020  
 OPERATOR'S WELL #: McCLELLAN 9H  
 API WELL #: 47 61 01820 MBO  
 STATE COUNTY PERMIT

AS-BUILT ELEVATION: 1,411.7'  
 QUADRANGLE: MANNINGTON  
 ACREAGE: 1098.86 +/-  
 ACREAGE: 129.4 +/-

TARGET FORMATION: MARCELLUS  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

ESTIMATED DEPTH: TVD: 8,160' TMD: 23,832.75'  
PILOT TVD: 8,400'  
 DESIGNATED AGENT: JOHN ADAMS  
 ADDRESS: 707 VIRGINIA STREET EAST, SUITE 1200  
 CITY: CHARLESTON STATE: WV ZIP CODE: 25301

PROPERTY OWNER INDEX	
1-26-7	NETTIEALYCE McCLELLAN
1-26-7.3	MILDRED GREENE
1-26-7.4	MILDRED C. GREENE
1-24-23	MILDRED C. GREENE
1-24-9.1	MARY C. WALLS
1-24-20.1	KEVIN D. & MARLA J. AMMONS
1-24-20.2	BRUCE R. & CYNTHIA E. TOOTHMAN
1-24-9	MARY C. WALLS
1-24-20	KEVIN D. MARLA J. AMMONS
1-24-12	HILDA JEAN DONALDSON
1-24-13.1	DOUGLAS ALAN SWISHER
1-24-15	MARY C. WALLS
1-24-13.2	FRANCIS GREGORY & THERESA IRENE SWISHER
1-24-3	JOHN A. & KAREN J. MASON
1-24-13	JODI NOELLE & ERIC MASON SWECKER
1-24-2	ERIC DALE CHISLER
1-17-9	FRANKLIN MICHAEL CHISLER
1-17-7.6	TIMOTHY K. & BILLIE JO BANE
1-17-7.7	KENT & SHIRLEY LEONHARDT
1-17-8.1	TIMOTHY K. & BILLIE JO BANE
1-17-8	DEBORAH THOMAS
1-17-7.8	DEBORAH K. WOODS
1-17-7.2	JUSTIN & RAEALENA NICHOLSON
1-17-7.1	DEBORAH THOMAS
1-18-46	ALICE B. & TERRY JOE GUMP, KAREN SUE NICHOLSON & MELISSA ANN RABER
1-18-16	SOCTTY W. & MINOKA HOWARD
1-18-15.2	JOHN D. AMMONS
1-18-15.6	RONALD J. & JOHN R. AMMONS
1-18-15.5	RONALD J. & JOHN R. AMMONS
1-18-15.4	JOHN RICHARD & JENNIFER A. AMMONS
1-18-15	DAVID & JESSICA L. AMMONS
1-18-15.3	RONALD J. AMMONS

LEASE INDEX			
A	WV-061-04172-001	H	WV-061-00109-001-LA
B	WV-061-00109-002-LA	I	WV-061-00119-001-LA
C	WV-061-04182-001	J	WV-061-04602-001
D	WV-061-00109-002-LA	K	WV-061-00119-001-LA
E	WV-061-00109-002-LA	L	WV-061-00119-001-LA
F	WV-061-00111-002-LA	M	WV-061-00113-001-LA
G	WV-061-04089-000		

FILE #: NEE14

DRAWING #: 2940

SCALE: N/A

DATE: JANUARY 27, 2020

OPERATOR'S WELL #: McCLELLAN 9H

API WELL #: 47 61 01820 MOD  
STATE COUNTY PERMIT

61-01820



January 23, 2020

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

RE: McClellan 5H, 9H, 13H, 17H

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 Frank Haught Road (State Route 15/9), Crossroads-Fairview Road (Route 15), Simon Haught Road (Route 17/4), County Route 13, and Graveyard Hill on the enclosed survey plats.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Charles Dornetto', is written over the word 'Sincerely,'.

Charles Dornetto  
Manager – Land Operations

Enclosure

RECEIVED  
Office of Oil and Gas

JAN 29 2020

WV Department of  
Environmental Protection