



west virginia department of environmental protection

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

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

Monday, January 25, 2021
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit Modification Approval for MCDONALD 1211 N-3H
47-041-05703-00-00

Extend Lateral Length

HG ENERGY II APPALACHIA, 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.

James A. Martin
Chief

Operator's Well Number: MCDONALD 1211 N-3H
Farm Name: HG ENERGY II APPALACHIA, LLC
U.S. WELL NUMBER: 47-041-05703-00-00
Horizontal 6A New Drill
Date Modification Issued: 1/25/2021

Promoting a healthy environment.

WW-6B
(04/15)

4704105703

API NO. 47- _____ - _____
OPERATOR WELL NO. McDonald 1211 N-3H
Well Pad Name: McDonald 1211

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

1) Well Operator: HG Energy II Appalachia, L.P. 494519932 Lewis Freeman West Milford 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: McDonald 1211 N-3H Well Pad Name: McDonald 1211

3) Farm Name/Surface Owner: McDonald Public Road Access: SR 19

4) Elevation, current ground: 1280' Elevation, proposed post-construction: 1264.5'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow Deep _____
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 6753'/6835' and 82' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6800'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 26,467'

11) Proposed Horizontal Leg Length: 19,220'

12) Approximate Fresh Water Strata Depths: 34', 107', 205', 229', 249'

13) Method to Determine Fresh Water Depths: Nearest offset well data, (47-041-5128, 3938, 4929)

14) Approximate Saltwater Depths: 1299', 1675'

15) Approximate Coal Seam Depths: 810' to 815', (Surface casing being extended to cover additional seams of coal in the DTI Storage Field)

16) Approximate Depth to Possible Void (coal mine, karst, other): None

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

DEC 16 2020

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

WV Department of
Environmental Protection

Bang Shlyps
12-10-20
Page 1 of 3

WW-6B
(04/15)

4704105703
 API NO. 47- _____ - _____
 OPERATOR WELL NO. McDonald 1211 N-3H
 Well Pad Name: McDonald 1211

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1000'	1000'	CTS
Intermediate 1	13 3/8"	NEW	J-55 BTC	68	2040'	2040'	CTS
Intermediate 2	9 5/8"	NEW	J-55 BTC	40	2750'	2750'	CTS
Production	5 1/2"	NEW	P-110 HP	23	26467'	26467'	CTS
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	26"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Lead 40% excess, Tail 0% Excess
Production	5 1/2"	8 1/2"	.415	16240	12000	Type 1/Class A	20% excess yield = 1.19, tail yield 1.94
Tubing							
Liners							

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PACKERS

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

Barry Stiles
12-10-20

WW-6B
(10/14)

4704105703
API NO. 47-

OPERATOR WELL NO. McDonald 1211 N-3H

Well Pad Name: McDonald 1211

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6800 feet. Drill horizontal leg to estimated 19,220 lateral length, 26,467 TMD. Hydraulically fracture stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ACP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.75 acres

22) Area to be disturbed for well pad only, less access road (acres): 7.31 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.
Freshwater/Coal - centralized every 3 joints to surface.
Intermediate 1 - Bow Spring on every joint, will also be running ACP for isolating storage zone
Intermediate 2 - Bow Spring on first 2 joints then every third joint to 100' from surface.
Production - Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 5.5' long joint to the top of the curve.

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

Conductor - N/A, Casing to be drilled in w/ Dual Rotary Rig.
Fresh Water/Coal - 15.8 ppg PNE-1 + 3% bwoc CaCl₂, 40% Excess Yield = 1.20, CTS
Intermediate 1 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl₂, 40% Excess / Tail: 15.3 ppg PNE-1 + 2.5% bwoc CaCl₂ zero% Excess. CTS
Intermediate 2 - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl₂, 40% Excess. Tail: 15.3 ppg, PNE-1 + 2.5% bwoc CaCl₂, zero% Excess. CTS
Production - Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170, Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess, Lead Yield=1.19, Tail Yield=1.94, CTS

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25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.
Fresh Water/Coal - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.
Intermediate 1 - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.
Intermediate 2 - Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.
Production - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

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Environmental Protection

*Note: Attach additional sheets as needed.



1211 N-3H
Marcellus Shale Horizontal
Lewis County, WV

Ground Elevation			1211 N-3H SHL				14211880N 1789473.65E			
Azm			1211 N-3H LP				14212301.15N 1788823.11E			
WELLBORE DIAGRAM			1211 N-3H BHL				14230608.66N 1783017.01E			
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
X	30"	30" 157.5# LS	Conductor	0	120	AIR	N/A. Casing to be drilled in w/ Dual Rotary Rig	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness
X	26"	20" 94# J-55	Fresh Water	0	205	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi
X			Kittanning Coal	919	924					
X			Fresh Water Protection	0	1000					
X	17.5"	13-3/8" 68# J-55 BTC	Big Lime	1480	1545	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on every joint <i>*will also be running ACP for isolating storage zone*</i>	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi
X			Injun / Gantz (Storage)	1545 / 1830	1650 / 1890					
X			Intermediate 1	0	2040					
X			Fifty / Thirty Foot	1940 / 2037	1965 / 2060					
X	12.25"	9-5/8" 40# J-55 BTC	Gordon Stray / Gordon	2060 / 2130	2130 / 2220	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on first 2 joints then every third joint to 100' form surface	Once casing is at setting depth, Circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=3950 psi
X			5th Sand	2320	2360					
X			Bayard Sand	2405	2420					
X			Intermediate 2	0	2750					
X	8.5" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Speechley	3025	3041	AIR / 9.0ppg SOB M	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions
X			Balltown	3250	3290					
X			Benson	4340	4350					
X	8.5" Curve	5-1/2" 23# P-110 HP CDC HTQ	Rhinestreet	6107	6377	11.5ppg-12.5ppg SOB M	Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.			
X			Cashaqua	6377	6477					
X			Middlesex	6477	6509					
X			West River	8509	6580					
X			Burkett	6580	6590					
X			Tully Limestone	6590	6698					
X			Hamilton	6698	6753					
X	8.5" Lateral	TMD / TVD (Production)	26467	6800	11.5ppg-12.5ppg SOB M					
X	Onondaga	6835	6835							

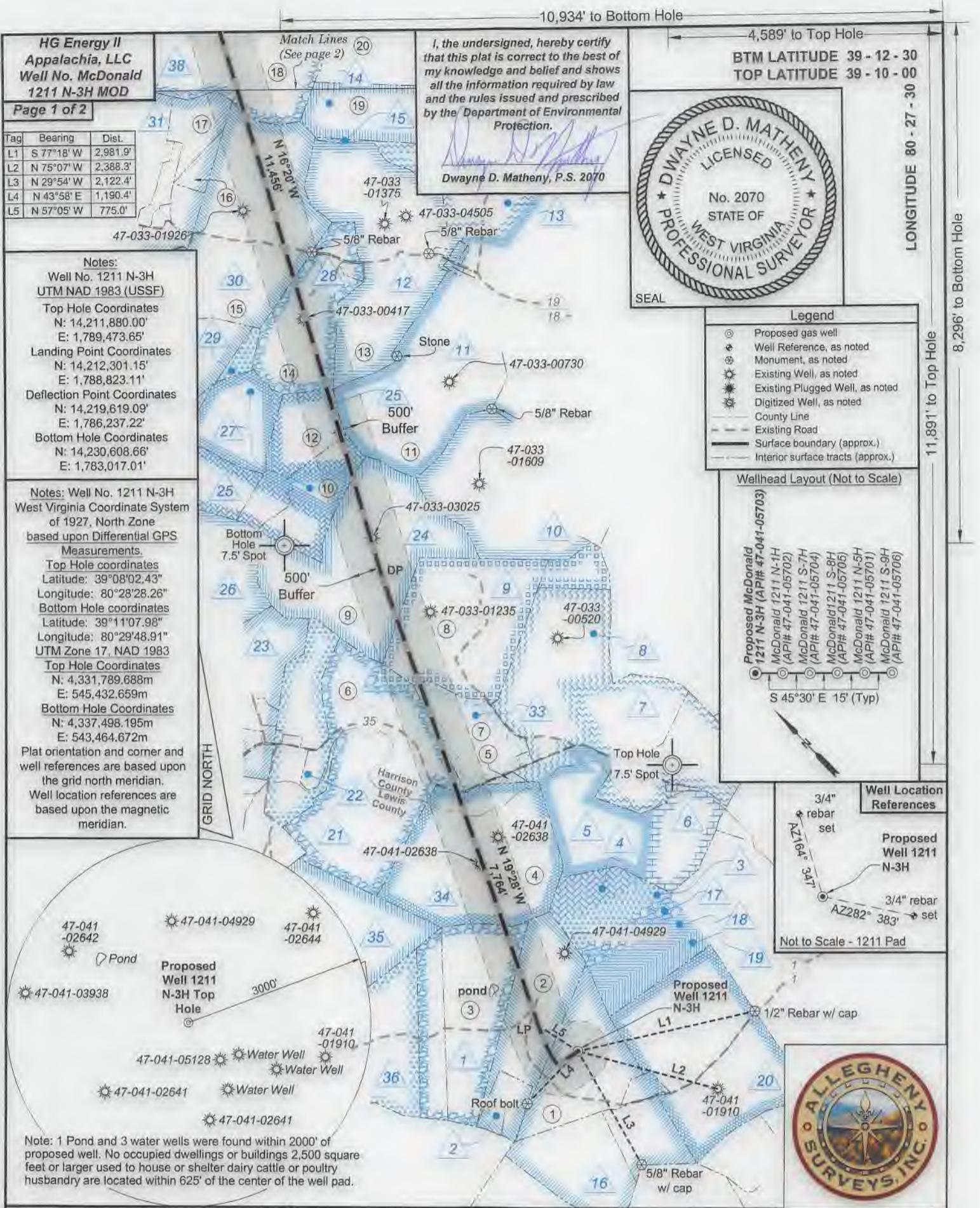
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LP @ 6800' TVD / 7246' MD 8.5" Hole - Cemented Long String 5-1/2" 23# P-110 HP CDC HTQ +/-19221' ft Lateral TD @ +/-6800' TVD +/-26467' MD

X=centralizers

4704105703



**HG Energy II
Appalachia, LLC
Well No. McDonald
1211 N-3H MOD**

Page 1 of 2

Tag	Bearing	Dist.
L1	S 77°18' W	2,981.9'
L2	N 75°07' W	2,388.3'
L3	N 29°54' W	2,122.4'
L4	N 43°58' E	1,190.4'
L5	N 57°05' W	775.0'

Notes:
Well No. 1211 N-3H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,211,880.00'
E: 1,789,473.65'
Landing Point Coordinates
N: 14,212,301.15'
E: 1,788,823.11'
Deflection Point Coordinates
N: 14,219,619.09'
E: 1,786,237.22'
Bottom Hole Coordinates
N: 14,230,608.66'
E: 1,783,017.01'

Notes: Well No. 1211 N-3H
West Virginia Coordinate System
of 1927, North Zone
based upon Differential GPS
Measurements.
Top Hole coordinates
Latitude: 39°08'02.43"
Longitude: 80°28'28.26"
Bottom Hole coordinates
Latitude: 39°11'07.98"
Longitude: 80°29'48.91"
UTM Zone 17, NAD 1983
Top Hole Coordinates
N: 4,331,789.688m
E: 545,432.659m
Bottom Hole Coordinates
N: 4,337,498.195m
E: 543,464.672m
Plat orientation and corner
and well references are based upon
the grid north meridian.
Well location references are
based upon the magnetic
meridian.

**Proposed Well 1211
N-3H Top Hole**

**Proposed Well 1211
N-3H**

Note: 1 Pond and 3 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

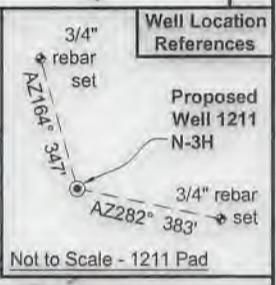
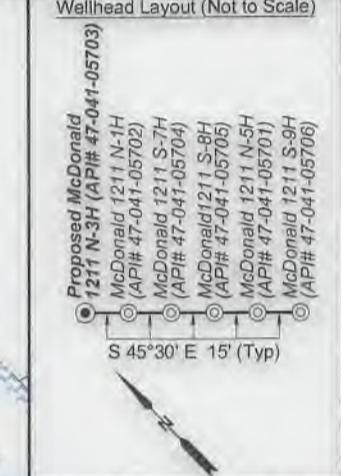
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny
Dwayne D. Matheny, P.S. 2070



Legend

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- County Line
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)



FILE NO: 79-36-12-U-F-18
DRAWING NO: 1211 N-3H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: December 2 2020
OPERATOR'S WELL NO. 1211 N-3H
API WELL NO **47-041-05703**
STATE COUNTY PERMIT

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

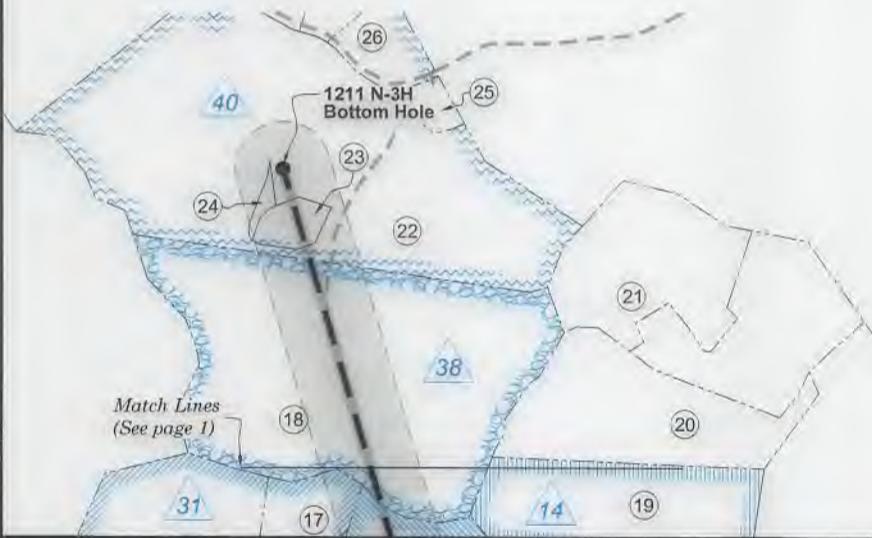
LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek QUADRANGLE: West Milford
DISTRICT: Freemans Creek COUNTY: Lewis
SURFACE OWNER: HG Energy II Appalachia, LLC ACREAGE: 61.50
ROYALTY OWNER: Mary R. Post, et al, et al LEASE NO: ACREAGE: 145.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD - BH 6,800' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 26,467' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101



No.	TM / Par	Owner	Bk / Pg	Ac.
1	7B / 10	CNX Gas Company, LLC	680 / 266	61.50
2	7B / 9	Brincefield Family Trust	588 / 740	56.76
3	6B / 41	Brincefield Family Trust	588 / 740	71.619
4	6B / 40	Robert G. & Leah V. Burnside	660 / 388	126.50
5	443 / 29.3	Ruth Burnside	1268 / 1168	1.426
6	443 / 28	Mary Lou Curry, et al	1539 / 769	139.97
7	443 / 29	Danny L. & Rebecca A. Stickel	1258 / 1130	39.01
8	443 / 14	Steve L. & Nadine J. Villers	1180 / 529	102.03
9	433 / 27	James C. Garrett	1412 / 891	128.82
10	423 / 22	James C. Garrett	1412 / 891	35.58
11	423 / 7	K. Wade & Mary M. Dickinson	1275 / 492	197.98
12	423 / 21	Jefferson Lambert & Linda J. Ashcraft	1322 / 689	39.77
13	423 / 6	K. Wade & Mary M. Dickinson	1275 / 492	127.39
14	423 / 20	Jefferson Lambert & Linda J. Ashcraft	1320 / 409	56.47
15	423 / 5	Ernest Aubrey Rider	1136 / 136	137.48
16	423 / 4.4	CNX Gas Co. LLC	1537 / 119	6.95
17	423 / 4	James E. Dills	1596 / 158	21.32
18	403 / 25	Arden L. Skidmore	1622 / 1302	201.00
19	403 / 27	Mary V. Gabriel	W146 / 481	63.00
20	403 / 29	Mary V. Gabriel	W146 / 481	67.13
21	403 / 30	Ronald M. & Melissa Hitt	1244 / 401	56.50
22	403 / 4	Clara Mae Hurst, et al	1269 / 696	229.45
23	403 / 4.5	Antero Midstream, LLC	1542 / 703	7.00
24	403 / 4.6	Stonewall Gas Gathering, LLC	1548 / 1210	1.75
25	403 / 4.1	Terry & Kimberly Simons	1597 / 530	2.47
26	403 / 4.2	David K. & Lisa A. Gaines	1239 / 345	15.04

ID	Lease
1	J.L. Post, et al
2	HG Energy II Appalachia, LLC
3	Rosa L. Brown, et al
4	Cora B. Allman, et al
5	Gunn Minter, et al
6	HG Energy II Appalachia, LLC
7	W.R. Neeley, et al
8	HG Energy II Appalachia, LLC
9	J.H. Neeley & et al
10	R.C. McDonald, et al
11	R.C. McDonald, et ux, et al
12	B.F. Thrash, et ux
13	Lola McDonald, et al
14	George Paul Linn
15	HG Energy II Appalachia, LLC
16	Mary E. Post, et al
17	A.D. Beeghley & et al
18	Arthur Beeghley & et al
19	James Beeghley, et al
20	Gunn Minter, et al
21	A.W. Davis
22	Mary Robinson, et al
23	C.C. Ash
24	C.M. Garrett, et al
25	Worthy R. Lowman
26	W.L. Oldaker, et al
27	Worthy R. Lowman
28	William & Sue Gaston
29	E. Rider, et al
30	D.M. Cole, et al
31	Jesse B. Knight, et al
33	Gunn Minter, et al
34	L.W. Davis, et al
35	Henry L. Frashuer, et al
36	Henry L. Frashuer, et al
38	Mary Ann Hall, et al
40	Hallie Mchagan, et al



FILE NO: 79-36-12-U-F-18
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ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

10,934' to Bottom Hole

4,589' to Top Hole
BTM LATITUDE 39 - 12 - 30
TOP LATITUDE 39 - 10 - 00

LONGITUDE 80 - 27 - 30

11,891' to Top Hole

8,296' to Bottom Hole

**HG Energy II
Appalachia, LLC
Well No. McDonald
1211 N-3H MOD**

Page 1 of 2

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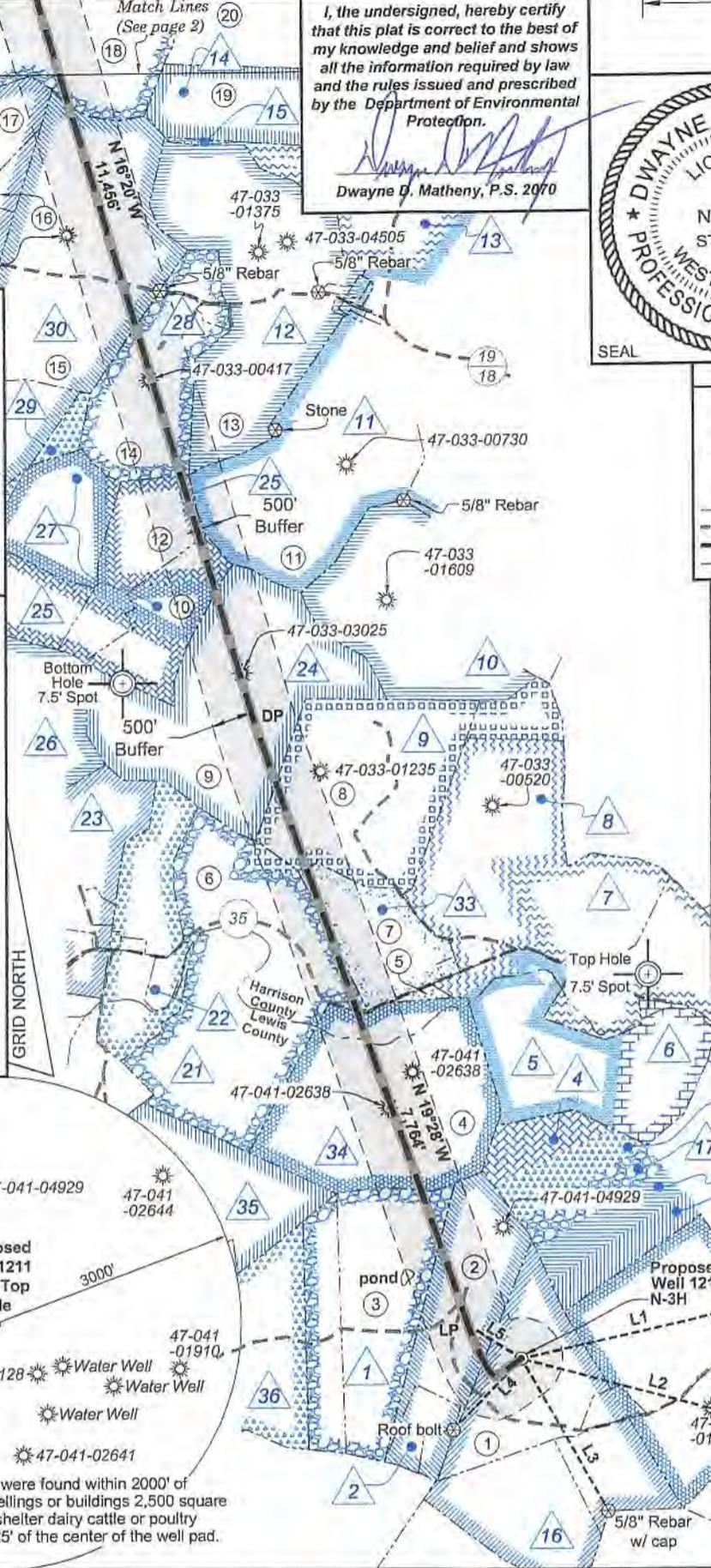
I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny
Dwayne D. Matheny, P.S. 2070



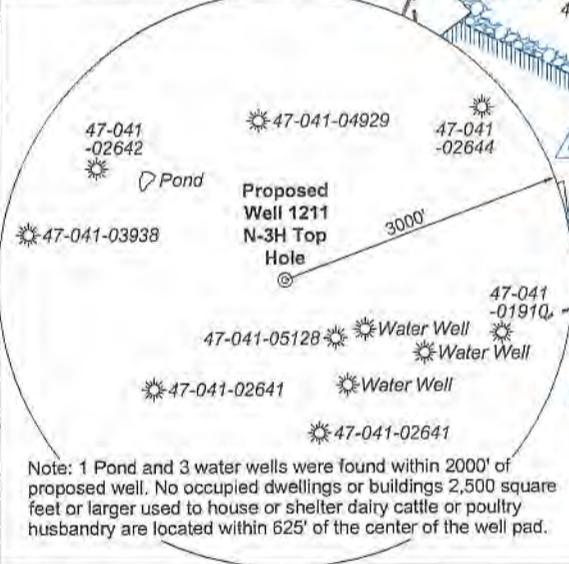
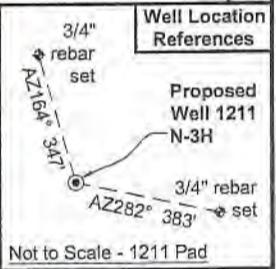
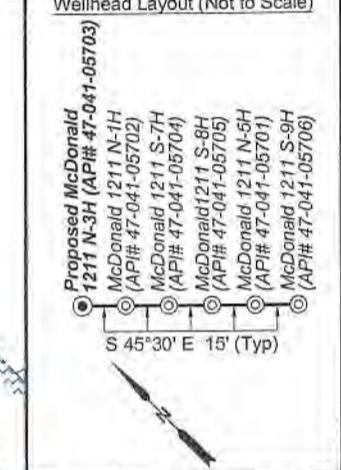
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E: 545,432.659m
Bottom Hole Coordinates
N: 4,337,498.195m
E: 543,464.672m
Plat orientation and corner and
well references are based upon
the grid north meridian.
Well location references are
based upon the magnetic
meridian.



Legend

- ⊙ Proposed gas well
- ⊛ Well Reference, as noted
- ⊙ Monument, as noted
- ⊙ Existing Well, as noted
- ⊙ Existing Plugged Well, as noted
- ⊙ Digitized Well, as noted
- County Line
- - - Existing Road
- Surface boundary (approx.)
- - - Interior surface tracts (approx.)



FILE NO: 79-36-12-U-F-18
DRAWING NO: 1211 N-3H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: December 2 2020
OPERATOR'S WELL NO. 1211 N-3H
API WELL NO
47 - 041 - 05703
STATE COUNTY PERMIT

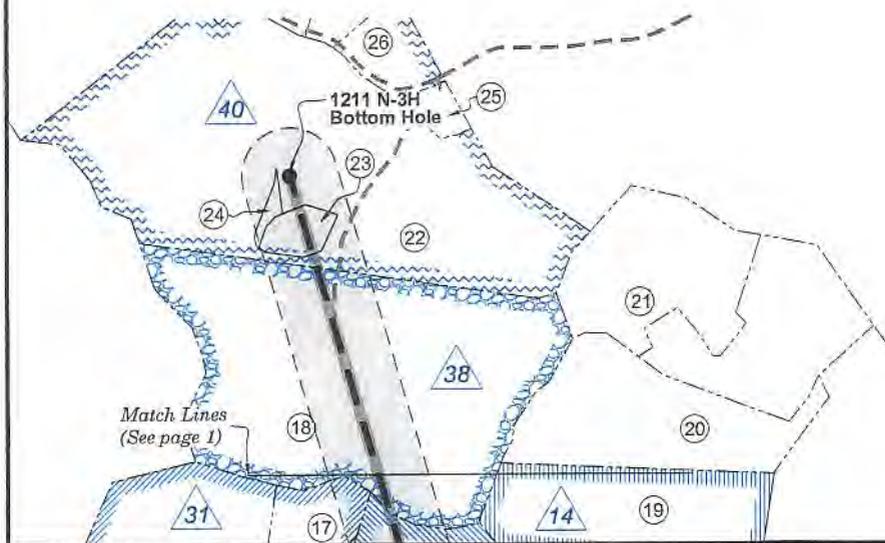
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek QUADRANGLE: West Milford
DISTRICT: Freemans Creek COUNTY: Lewis
SURFACE OWNER: HG Energy II Appalachia, LLC ACREAGE: 61.50
ROYALTY OWNER: Mary R. Post, et al, et al LEASE NO: ACREAGE: 145.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD - BH 6,800' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 26,467' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101



No.	TM / Par	Owner	Bk / Pg	Ac.
1	7B / 10	CNX Gas Company, LLC	680 / 266	61.50
2	7B / 9	Brincefield Family Trust	588 / 740	56.76
3	6B / 41	Brincefield Family Trust	588 / 740	71.619
4	6B / 40	Robert G. & Leah V. Burnside	660 / 388	126.50
5	443 / 29.3	Ruth Burnside	1268 / 1168	1.426
6	443 / 28	Mary Lou Curry, et al	1539 / 769	139.97
7	443 / 29	Danny L. & Rebecca A. Stickel	1258 / 1130	39.01
8	443 / 14	Steve L. & Nadine J. Villers	1180 / 529	102.03
9	433 / 27	James C. Garrett	1412 / 891	128.82
10	423 / 22	James C. Garrett	1412 / 891	35.58
11	423 / 7	K. Wade & Mary M. Dickinson	1275 / 492	197.98
12	423 / 21	Jefferson Lambert & Linda J. Ashcraft	1322 / 689	39.77
13	423 / 6	K. Wade & Mary M. Dickinson	1275 / 492	127.39
14	423 / 20	Jefferson Lambert & Linda J. Ashcraft	1320 / 409	56.47
15	423 / 5	Ernest Aubrey Rider	1136 / 136	137.48
16	423 / 4.4	CNX Gas Co. LLC	1537 / 119	6.95
17	423 / 4	James E. Dills	1596 / 158	21.32
18	403 / 25	Arden L. Skidmore	1622 / 1302	201.00
19	403 / 27	Mary V. Gabriel	W146 / 481	63.00
20	403 / 29	Mary V. Gabriel	W146 / 481	67.13
21	403 / 30	Ronald M. & Melissa Hitt	1244 / 401	56.50
22	403 / 4	Clara Mae Hurst, et al	1269 / 696	229.45
23	403 / 4.5	Antero Midstream, LLC	1542 / 703	7.00
24	403 / 4.6	Stonewall Gas Gathering, LLC	1548 / 1210	1.75
25	403 / 4.1	Terry & Kimberly Simons	1597 / 530	2.47
26	403 / 4.2	David K. & Lisa A. Gaines	1239 / 345	15.04

ID	Lease
1	J.L. Post, et al
2	HG Energy II Appalachia, LLC
3	Rosa L. Brown, et al
4	Cora B. Allman, et al
5	Guinn Minter, et al
6	HG Energy II Appalachia, LLC
7	W.R. Neeley, et al
8	HG Energy II Appalachia, LLC
9	J.H. Neeley & et al
10	R.C. McDonald, et al
11	R.C. McDonald, et ux, et al
12	B.F. Thrash, et ux
13	Lola McDonald, et al
14	George Paul Linn
15	HG Energy II Appalachia, LLC
16	Mary E. Post, et al
17	A.D. Beeghley & et al
18	Arthur Beeghley & et al
19	James Beeghley, et al
20	Guinn Minter, et al
21	A.W. Davis
22	Mary Robinson, et al
23	C.C. Ash
24	C.M. Garrett, et al
25	Worthy R. Lowman
26	W.L. Oldaker, et al
27	Worthy R. Lowman
28	William & Sue Gaston
29	E. Rider, et al
30	D.M. Cole, et al
31	Jesse B. Knight, et al
33	Guinn Minter, et al
34	L.W. Davis, et al
35	Henry L. Frashuer, et al
36	Henry L. Frashuer, et al
38	Mary Ann Hall, et al
40	Hallie McHagan, et al



FILE NO: 79-36-12-U-F-18
DRAWING NO: 1211 N-3H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: December 2, 2020
OPERATOR'S WELL NO. 1211 N-3H
API WELL NO
47 - 041 - 05703
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,265.5' WATERSHED: Middle West Fork Creek QUADRANGLE: West Milford
DISTRICT: Freemans Creek COUNTY: Lewis
SURFACE OWNER: HG Energy II Appalachia, LLC ACREAGE: 61.50
ROYALTY OWNER: Mary R. Post, et al, et al LEASE NO: ACREAGE: 145.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) MOD - BH 6,800' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 26,467' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

WW-6A1
(5/13)

Operator's Well No. McDonald 1211 N-3H

**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 Sheets **

**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

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Environmental Protection

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: HG Energy II Appalachia, LLC
 By: Diane White *Diane White*
 Its: Agent

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HG Energy II Appalachia, LLC
McDonald 1211 N-3H Lease Chain

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WV Department of
Environmental Protection

TRACT #	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE
16	FK053254	03-007B-0010-0000 03-007B-0011-0000 03-007B-0013-0000 p/o 03-007B-0010-0001	Q10048600	MARY E. POST; J. L. POST; F. L. POST AND B. J. POST, HIS WIFE; IDA B. GASTON AND CLARK GASTON, HER HUSBAND; G. W. POST AND FLAVA POST, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	291
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		WVSOS
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		WVSOS
				DOMINION TRANSMISSION, INC.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	620	139
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	651	137
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE		WVSOS
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
2	FK052962	03-007B-0009-0000 03-007B-0009-0001 03-007B-0009-0002	FK052962 FEE	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC AND NOBLE ENERGY, INC	NOT LESS THAN 1/8	692	570
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE		WVSOS
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
1	FK053255	03-006B-0041-0000 03-006B-0042-0000	Q100673000	J.L. POST, F.L. POST AND B.J. POST, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	68	292
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	155	202
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		WVSOS
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		WVSOS
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	672	154
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	684	57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	712	848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE		WVSOS
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	723	527
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	723	499				
				L. W. DAVIS AND M. L. DAVIS, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	LEWIS 227	356
							HARRISON 176	488
				RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	LEWIS 155	202
							HARRISON 508	573

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34	FK053250	03-006B-0040-0000	Q100336000	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	RECEIVED Office of Oil and Gas DEC 16 2020	LEWIS 294	89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT		HARRISON 903	179
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		LEWIS 425	127
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		HARRISON 1136	250
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT		WVSOS	
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)		LEWIS 672	154
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)		HARRISON 1522	33
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT		LEWIS 684	57
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT		HARRISON 1543	1235
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT		LEWIS 712	848
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE		HARRISON 1576	125
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT		LEWIS 717	1
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		HARRISON 1584	942
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		LEWIS 722	139
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		LEWIS 722	170
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT		HARRISON 1600	692
				21	FK053272	p/o 20-0443-0028-0000		Q100488000	A W DAVIS
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	HARRISON 194				269		
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	LEWIS 155				202		
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	HARRISON 508				573		
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	LEWIS 294				89		
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	HARRISON 903				179		
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	LEWIS 425				127		
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM FARMOUT AGREEMENT	HARRISON 1136				250		
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	WVSOS						
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	LEWIS 672				154		
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	HARRISON 1524				491		
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	LEWIS 684				57		
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	HARRISON 1543				1235		
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	LEWIS 712				848		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	HARRISON 1576				125		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	LEWIS 717				1		
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	HARRISON 1584				942		

WV Department of Environmental Protection

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 20-0443-0029-0001
 20-0443-0029-0003
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 20-0444-0024-0000
 20-00444-0025-0000
 p/o 03-007B-0001-0000
 p/o 03-007B-0001-0000
 p/o 20-0443-0015-0000
 p/o 20-0443-0016-0000
 p/o 20-0443-0015-0000

Q101020000

GUINN MINTER AND JANE MINTER, HIS WIFE	RESERVE GAS COMPANY	NOT LESS THAN 1/8	LEWIS 227	174
			HARRISON 174	203
RESERVE GAS COMPANY	HOPE NATURAL GAS COMPANY	CONFIRMATORY DEED	LEWIS 155	202
			HARRISON 508	573
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	LEWIS 294	89
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	LEWIS 425	127
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		
			LEWIS 672	154
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	HARRISON 1522	33
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM FARMOUT AGREEMENT	HARRISON 1524	491
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	LEWIS 684	57
			HARRISON 1543	1235
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	LEWIS 712	848
			HARRISON 1576	125
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	LEWIS 717	1
			HARRISON 1584	942
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	LEWIS 722	139
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	HARRISON 1600	660
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	HARRISON 1600	692
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	AMENDED AND RESTATED PARTIAL ASSIGNMENT	LEWIS 723	527
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	LEWIS 723	499
			HARRISON 1601	581

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 20-0443-0016-0000
 p/o 20-0443-0028-0000

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J. H. NEELY AND CLAUDIE NEELY, HIS WIFE (1/2)	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	732	315
WM. A. JACKSON (1/2)	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	769	40
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		
DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC VI, CONSOL ENERGY HOLDINGS LLC XVI, CONSOL GAS COMPANY LLC, CNX GAS COMPANY LLC	MERGER/NAME CHANGE	1472	294
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584	942
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	660
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	692

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C.M. GARRETT AND DELPHIA GARRETT, HIS WIFE; CHARLES M. GARRETT, JR. AND HILDA GARRETT, HIS WIFE; JOSEPH R. GARRETT AND RUTH G. GARRETT, HIS WIFE; JOHN E. GARRETT AND HELEN H. GARRETT, HIS WIFE; LOMAN E. GSARRETT AND VIRGINIA G. GARRETT, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	727	333
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125

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 DEC 16 2020
 WV Department of Environmental Protection

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				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	660
				DOMINION ENERGY TRANSMISSION INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				WORTHY R. LOWMAN AND CORA E. LOWMAN, HIS WIFE; IDA V. LOWMAN, SINGLE; CORA B. RICHARDS AND JOHN E. RICHARDS, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	756	141
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE		
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE		
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	660
				DOMINION ENERGY TRANSMISSION INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				WORTHY R. LOWMAN AND CORA E. LOWMAN, HIS WIFE; IDA V. LOWMAN, SINGLE; CORA B. RICHARDS AND JOHN E. RICHARDS, HER HUSBAND	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	756	147
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	660
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	SECOND AMENDMENT TO MEMORANDUM OF	1601	581
25	FK066078	20-0423-0016-000 20-0423-0017-0000 20-0423-0021-0000 20-0423-0022-0000	Q100445000					
27	FK066079	20-0423-0016-0000 20-0423-0017-0000 20-0423-0021-0000 20-0423-0022-0000	Q100989000					

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28	FK002350	20-0423-0020-0000 20-0423-0020-0001 20-0423-0020-0002	Q101147000	WILLIAM GASTON AND SUE GASTON, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	113	439				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179				
				PENNZOIL COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	ASSIGNMENT	1126	2				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795				
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM	1524	491				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584	942				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	660				
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	SECOND AMENDMENT TO MEMORANDUM OF	1601	581				
30	FK013946	20-0423-0018-0000 20-0423-0005-0000 20-0423-0003-0000	Q100907000	D.M. COLE AND E.E. COLE, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	175	166				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795				
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584	942				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600	660				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581				
				31	FK022341	20-0423-0001-0000 20-0423-0001-0001 20-0423-0004-0000 20-0423-0004-0001 20-0423-0004-0002 20-0423-0004-0003 20-0423-0004-0004	Q100750000 Q102356000 FEE	JESSE B. KNIGHT AND LYDIA E. KNIGHT, HIS WIFE; AND A. B. COFFINDAFFER AND S. J. COFFINDAFFER, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	192	362
								HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179
								CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51					795				
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58					362				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522					33				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543					1235				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576					125				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT AND BILL OF SALE	1584					942				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT, BILL OF SALE AND CONVEYANCE	1600					660				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA LLC	ASSIGNMENT	1601					692				
DOMINION TRANSMISSION INC	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601					581				
13993 14412 14786 15225	13993 14412 14786 15225	13993 14412 14786 15225	13993 14412 14786 15225					Hall, Mary Ann	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8	1501	687
				Daughtery, Arden F. and Mary D. Daughtery, his wife	Doran & Associates, Inc.	NOT LESS THAN 1/8	1095	625				
				Doran & Associates, Inc.	NRM Petroleum Corporation	ASSIGNMENT	1096	367				
				NRM Petroleum Corporation	Natural Resource Management Corporation	MERGER/NAME CHANGE	WVSOS					
				Natural Resource Management Corporation	Edisto Resources Corporation	MERGER/NAME CHANGE	WVSOS					
				NRM Operating Company, L.P.; Edisto Resources Corporation	Eastern American Energy Corporation	ASSIGNMENT	1216	558				
				Eastern American Energy Corporation	Energy Corporation of America	ASSIGNMENT	1441	1003				
				Energy Corporation of America	Antero Resources Appalachia Corporation	ASSIGNMENT	1503	93				
				Energy Corporation of America	Antero Resources Appalachia Corporation	ASSIGNMENT	1524	620				

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38	15233 15236 15237 15381 15522 15523 15524 15525 15646 15647 15648 15649 15707	20-0403-0025-0000	15233 15236 15237 15381 15522 15523 15524 15525 15646 15647 15648 15649 15707	Hall, Mary Ann	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8	RECEIVED Office of Oil and Gas DEC 16 2020 WV Department of Environmental Protection	1499	339					
				Rymer, John William	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1500	961					
				Curry, Helen Ruth	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	44					
				Saunders, Jessie	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	672					
				Cunningham, Nancy E.	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	677					
				Curry, Dr. Steven T.	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	667					
				Venettozzi, Mary Elizabeth, AKA Mary E. Venettozzi, by Michael Venttozzi, her Conservator by Order of Appointment dated Sept 28, 2010 and Recorded Nov 27, 2012 in MIS book 40, Pg 712 in Harrison County, WV	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	1200					
				Curry, Marjorie, a/k/a Marjorie M. Curry, by R. Lynn Curry, her AIF	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	995					
				Curry, John H. III	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	1205					
				Curry, Krista	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1501	1000					
				Halterman, Naomi	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1502	114					
				Franklin, Eleanor Jane	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1502	119					
				Curry, Thomas	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1502	124					
				Curry, Susan G.	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8		1502	962					
				Antero Resources Appalachia Corporation	Antero Resources Corporation	MERGER / NAME CHANGE			WVSOS					
				Antero Resources Corporation	HG ENERGY II APPALACHIA, LLC	Notice of Letter Agreement		1705	100					
				40	2847, 2848, 2849	20-0403-0004-0000		2847, 2848, 2849	McGahan, Hallie, widow	Consolidated Gas Supply Corporation	NOT LESS THAN 1/8		1034	1094
									Sayler, Mary M. and J.M. Sayler, w/h; Maude Caynor Todd and O.V. Todd, w/h; Harvey J. Caynor and Maude Caynor, h/w; et al	Consolidated Gas Supply Corporation	NOT LESS THAN 1/8		1034	425
									Wilson, Leon F. and Thelma M. Wilson, h/w; Robert L. Wilson and Cathy D. Wilson, h/w	Consolidated Gas Supply Corporation	NOT LESS THAN 1/8		1034	1090
									Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	MERGER / NAME CHANGE		WVSOS	
Consolidated Gas Transmission Corporation	CNG Transmission Corporation	MERGER / NAME CHANGE					WVSOS							
CNG Transmission Corporation	Dominion Transmission, Inc.	MERGER / NAME CHANGE					WVSOS							
Dominion Transmission, Inc.	Antero Resources Appalachia Corporation	ASSIGNMENT	1423						1068					
Antero Resources Appalachia Corporation	Antero Resources Corporation	MERGER / NAME CHANGE					WVSOS							
Naeser, Jo Ann	Antero Resources Appalachian Corporation	NOT LESS THAN 1/8	1114						106					
Antero Resources Appalachia Corporation	Antero Resources Corporation	MERGER / NAME CHANGE					WVSOS							
Antero Resources Appalachian Corporation	HG ENERGY II APPALACHIA, LLC	Notice of Letter Agreement	1705						100					

4704105703



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

December 9, 2020

WV DEP
Division of Oil & Gas
Attn: Kelly Kees
601 57th Street
Charleston, West Virginia 25304

RE: McDonald 1211 N-3H Permit Revision – (47-041-05703)
Freemans Creek District, Lewis County
West Virginia

Dear Ms. Kees -

Per our discussions, enclosed are revised forms (survey plat, mylar, WW-6B, casing schematic and WW6A-1) for the 1211 N-3H well work permit. We request the permit be modified as additional leases have been secured to lengthen the lateral.

Please let me know if you have any questions or require additional information. I can be reached at (304) 420-1119 or dwhite@hgenergyllc.com.

Very truly yours,

Diane White

Diane C. White

Enclosures

cc: Barry Stollings – Inspector

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Office of Oil and Gas
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WV Department of
Environmental Protection

November 19, 2020
Mr. Tim Rady
Antero Resources Corporation
1615 Wynkoop Street
Denver, Colorado 80202

RE: **Permission to Permit and Drill – McDonald 1211 N – 3H and McDonald 1211 N – 5H Units**

Harrison County, West Virginia

Dear Mr. Rady,

HG Energy II Appalachia, LLC (“**HG**”) hereby requests permission of Antero Resources Corporation (“**Antero**”) to proceed with its plans to drill one or more horizontal wells in, under, and through certain properties subject to oil and gas interests in the Target Depths owned or controlled by Antero located in Harrison County, West Virginia (as more particularly described on Exhibit A to this letter agreement (for clarity, including only those portions of the properties described in the column entitled “Conveyed Interest,” and specifically excluding the portions of the properties described in the column entitled “Retained Interest,” in each case, on Exhibit A, and insofar as located within the Units (as defined below), the “**Properties**”), pursuant to the terms and conditions of this letter agreement. Antero and HG are currently negotiating an acreage trade agreement for the exchange and/or granting of certain oil and gas interests in Doddridge, Harrison, Marion, and Wetzel Counties, West Virginia (the “**Potential Trade**”). Antero and HG anticipate that the Potential Trade will include the Properties and HG desires to commence drilling the Properties for the initial development of HG’s McDonald 1211 N – 3H and McDonald 1211 N – 5H Units (as more particularly described on Exhibit B to this letter agreement, the “**Units**”) during the pendency of negotiations and in advance of the closing of the Potential Trade. As used herein, “**Target Depths**” means those depths from the top of the Rhinestreet formation, at a depth of 5,827 feet, as seen by the Antero Resources Corporation Rymer 4H pilot hole, API 47095022730000, Tyler County, West Virginia, to the center of the earth.

In order to generate mutual goodwill between Antero and HG, and for one hundred dollars (\$100.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Antero hereby grants HG the rights to apply for and obtain all applicable governmental permits for the drilling of one or more wellbore laterals in, under, and through the Properties (collectively, “**Wells**”) and to drill such Wells; *provided*, that Antero expressly withholds and does not grant HG the right to complete or produce the Wells on or under the Properties or to access or conduct surface operations on the Properties.

In the event that Antero and HG do not finalize, execute and close the Potential Trade within one hundred and twenty (120) days after the date of this letter agreement (the “**Trade Deadline**”), then within ten (10) days after the Trade Deadline, (a) HG will pay Antero a purchase price of \$1,000/NRI acre for the Properties, and (b) Antero will concurrently transfer and convey the

Properties to HG pursuant to a mutually agreeable form of assignment, which will contain a special warranty of title by, through, and under Antero, but not otherwise and which, for the avoidance of doubt, will (unless otherwise agreed to by HG and Antero in writing) reserve to Antero all of Antero's right, title, and interest in formations other than the Target Depths. If Antero and HG do not finalize, execute, and close the Potential Trade on or prior to or on date that is one hundred and twenty (120) days after the date of this letter agreement, Antero and HG may mutually agree to extend the Trade Deadline for an additional thirty (30) days (*provided* that the electing party must then be continuing to negotiate in good faith in order to continue to pursue the transactions contemplated by the Potential Trade) while reasonably accommodating HG's ongoing development needs and requests for the Units.

Upon the written request of HG, Antero agrees to promptly provide to Antero copies of all applicable oil and gas leases, assignments, deeds, and other instruments (including amendments, modifications, and ratifications to each of the foregoing) to the extent related to the Properties.

HG hereby agrees to release, protect, indemnify, defend and hold Antero harmless from and against any claims, expenses, damages, injuries, claims or obligations or liabilities (including reasonable attorneys' fees) that may be brought by any third party against Antero or its affiliates to the extent arising out of HG's operations pursuant to this letter agreement and that arise on or after the date of this letter agreement.

Nothing in this letter agreement will diminish any current or future rights of Antero in the Properties or other properties. This letter agreement and the rights and obligations of Antero and HG hereunder will terminate upon the earlier of (i) the assignment of the Properties to HG pursuant to the third paragraph above, or (ii) if and when Antero and HG consummate the closing of the Potential Trade with respect to the Properties. This letter agreement will be binding upon HG and Antero and their respective successors and assigns. In the event of any assignment or transfer of this letter agreement, the assigning or transferring party shall require such assignee or transferee to expressly assume and be bound by the terms of this letter agreement.

If the above meets your approval, please execute in the space provided below and return one signed copy to the letterhead address. Should you have any questions, please contact Tyler Adams at (303) 357-7249.

[Signature Page Follows.]

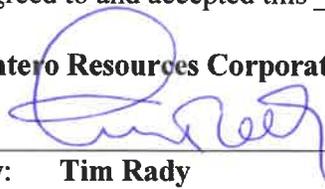
Sincerely,

HG Energy II Appalachia, LLC

By: **Jared Hall**
Title: **President**

Agreed to and accepted this _____ day of November, 2020.

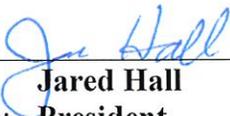
Antero Resources Corporation



By: **Tim Rady**
Title: **Vice President – Land**

Sincerely,

HG Energy II Appalachia, LLC



By: **Jared Hall**
Title: **President**

Agreed to and accepted this _____ day of November, 2020.

Antero Resources Corporation

By: **Tim Rady**
Title: **Vice President – Land**

EXHIBIT A

PROPERTIES

[Exhibit Pages Follow.]

Antero Resources Corporation
 Permission to Permit and Drill – McDonald 1211 N – 3H and McDonald 1211 N – 5H Units

Lessor	Lessee	Lease Date	Lease Gross Acres	Conveyed Gross Acres	Conveyed Net Acres	NRI	NRI Acres	State	County	District	Book	Page	Split Tract Plat	Conveyed Interest (Tax-Map-Parcel)	Retained Interest
Hall, Mary Ann	Antero Resources Appalachian Corporation	9/14/2012	202.89300	144.22800	18.02850	0.86	15.50451	WV	Harrison	Union	1499	339	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Rymer, John William	Antero Resources Appalachian Corporation	10/18/2012	202.89300	144.22800	18.02850	0.86000	15.50451	WV	Harrison	Union	1500	961	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, Helen Ruth	Antero Resources Appalachian Corporation	10/26/2012	202.89300	144.22800	4.50713	0.86000	3.87613	WV	Harrison	Union	1501	44	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Saunders, Jessie	Antero Resources Appalachian Corporation	10/30/2012	202.89300	144.22800	1.12642	0.86000	0.96872	WV	Harrison	Union	1501	672	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Cunningham, Nancy E.	Antero Resources Appalachian Corporation	10/24/2012	202.89300	144.22800	1.12642	0.86000	0.96872	WV	Harrison	Union	1501	677	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Hall, Mary Ann	Antero Resources Appalachian Corporation	10/30/2012	202.89300	144.22800	1.12642	0.86000	0.96872	WV	Harrison	Union	1501	687	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, Dr. Steven T.	Antero Resources Appalachian Corporation	10/30/2012	202.89300	144.22800	1.12642	0.86000	0.96872	WV	Harrison	Union	1501	667	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Venettozzi, Mary Elizabeth, AKA Mary E. Venettozzi, by Michael Ventozzi, her Conservator by Order of Appointment dated Sept 28, 2010 and Recorded Nov 27, 2012 in MIS book 40, Pg 712 in Harrison County, WV	Antero Resources Appalachian Corporation	10/27/2012	202.89300	144.22800	4.50713	0.86	3.87613	WV	Harrison	Union	1501	1200	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, Marjorie, a/k/a Marjorie M. Curry, by R. Lynn Curry, her AIF	Antero Resources Appalachian Corporation	11/7/2012	202.89300	144.22800	4.50713	0.86	3.87613	WV	Harrison	Union	1501	995	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, John H. III	Antero Resources Appalachian Corporation	10/26/2012	202.89300	144.22800	1.12642	0.86	0.96872	WV	Harrison	Union	1501	1205	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, Krista	Antero Resources Appalachian Corporation	10/25/2012	202.89300	144.22800	1.12642	0.86	0.96872	WV	Harrison	Union	1501	1000	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Halterman, Naomi	Antero Resources Appalachian Corporation	10/26/2012	202.89300	144.22800	4.50713	0.86000	3.87613	WV	Harrison	Union	1502	114	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Franklin, Eleanor Jane	Antero Resources Appalachian Corporation	10/26/2012	202.89300	144.22800	4.50713	0.86000	3.87613	WV	Harrison	Union	1502	119	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, Thomas	Antero Resources Appalachian Corporation	10/24/2012	202.89300	144.22800	1.12642	0.86000	0.96872	WV	Harrison	Union	1502	124	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Curry, Susan G.	Antero Resources Appalachian Corporation	10/24/2012	202.89300	144.22800	1.12642	0.86000	0.96872	WV	Harrison	Union	1502	962	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))
Daughtery, Arden F. and Mary D. Daughtery, his wife	Doran & Associates, Inc.	12/1/1979	202.89300	144.22800	72.11400	0.875	63.09975	WV	Harrison	Union	1095	625	D	20-403-25 (those portions crosshatched on Exhibit B- Part II (D))	20-403-25 (those portions dotted on Exhibit B- Part II (D))

Permission to Permit and Drill – McDonald 1211 N – 3H and McDonald 1211 N – 5H Units

Saylor, Mary M. and J.M. Saylor, w/h; Maude Caynor Todd and O.V. Todd, w/h; Harvey J. Caynor and Maude Caynor, h/w; et al	Consolidated Gas Supply Corporation	4/24/1975	296.00000	59.71000	41.79700	0.87500	36.57238	WV	Harrison	Union	1034	425	F	20-403-p/o 4; 20-403-p/o 4.1; 20-403-4.5; 20-403.p/o 4.6 (those portions crosshatched on Exhibit B- Part II (F))	20-403-p/o 4; 20-403-p/o 4.1; 20-403-4.5; 20-403.p/o 4.6 (those portions dotted on Exhibit B- Part II (F))
Wilson, Leon F. and Thelma M. Wilson, h/w; Robert L. Wilson and Cathy D. Wilson, h/w	Consolidated Gas Supply Corporation	5/20/1975	221.00000	59.71000	7.96113	0.87500	6.96599	WV	Harrison	Union	1034	1090	F	20-403-p/o 4; 20-403-p/o 4.1; 20-403-4.5; 20-403.p/o 4.6 (those portions crosshatched on Exhibit B- Part II (F))	20-403-p/o 4; 20-403-p/o 4.1; 20-403-4.5; 20-403.p/o 4.6 (those portions dotted on Exhibit B- Part II (F))
McGahan, Hallie, widow	Consolidated Gas Supply Corporation	5/20/1975	296.00000	59.71000	9.95187	0.87500	8.70788	WV	Harrison	Union	1034	1094	F	20-403-p/o 4; 20-403-p/o 4.1; 20-403-4.5; 20-403.p/o 4.6 (those portions crosshatched on Exhibit B- Part II (F))	20-403-p/o 4; 20-403-p/o 4.1; 20-403-4.5; 20-403.p/o 4.6 (those portions dotted on Exhibit B- Part II (F))

EXHIBIT B

UNITS

Operator	Unit Name	Unit Well API
HG Energy II Appalachia, LLC	McDonald 1211 N – 3H	4704105703
HG Energy II Appalachia, LLC	McDonald 1211 N – 5H	4704105701