



west virginia department of environmental protection

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

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

Friday, November 22, 2019
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD
PARKERSBURG, WV 26101

Re: Permit approval for NEEL 1207 S-9H
47-033-05974-00-00

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

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

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

A blue ink signature of James A. Martin, Chief, is written over a circular stamp. The signature is cursive and reads "James A. Martin".

James A. Martin
Chief

Operator's Well Number: NEEL 1207 S-911
Farm Name: HG ENERGY II APPALACHIA
U.S. WELL NUMBER: 47-033-05974-00-00
Horizontal 6A New Drill
Date Issued: 11/22/2019

PERMIT CONDITIONS

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

CONDITIONS

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

API Number: _____

PERMIT CONDITIONS

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

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

1) Well Operator: HG Energy II Appalachia, LLC 494519932 Harrison Union West Milford 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Neel 1207 S-9H Well Pad Name: Neel 1207

3) Farm Name/Surface Owner: HG Energy II Appalachia, LLC Public Road Access: Hidden Valley Rd @ SR 19

4) Elevation, current ground: 1354' Elevation, proposed post-construction: 1344'

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

*SOW
9/10/19*

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 7076'/7158' and 82' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 7145'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 22,041'

11) Proposed Horizontal Leg Length: 14,444'

12) Approximate Fresh Water Strata Depths: 135', 245', 425', 630', 731'

13) Method to Determine Fresh Water Depths: Nearest offset well data

14) Approximate Saltwater Depths: 1782', 1848'

15) Approximate Coal Seam Depths: 290, 340, 592, 1004' to 1009'

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

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

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

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WW-6B
(04/15)

API NO. 47- _____
 OPERATOR WELL NO. Neel 1207 S-9H
 Well Pad Name: Neel 1207

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	1100'	1100' ✓	40% excess yield = 1.20, CTS
Intermediate 1	13 3/8"	NEW	J-55	68	2200'	2200' ✓	40% excess yield = 1.20, CTS
Intermediate 2	9 5/8"	NEW	J-55	40	3000'	3000' ✓	40% excess yield = 1.20, CTS
Production	5 1/2"	NEW	P-110	23	21581'	21581' ✓	20% excess yield = 1.18, CTS
Tubing							
Liners							

SPW
11/19/2019

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"	24"	.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 ✓	12500	Type 1/Class A	20% excess yield = 1.18, CTS
Tubing							
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:

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7145 feet. Drill horizontal leg to estimated 14,444 feet lateral length, 22,041 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 ECP 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): 28.278 acres

22) Area to be disturbed for well pad only, less access road (acres): 12.715 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 ECP 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 5/8" 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: 15.9 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: 15.9 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.

Neel 1207 Well Pad (N-1H to N-6H, S-7H to S-12H)

4703305974

Cement Additives

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>65997-15-1</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> <tr> <td>Magnesium oxide</td> <td>1 - 5</td> <td>1309-48-4</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>0.1 - 1</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Portland cement	90 - 100	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
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Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
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Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
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Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Tributyl phosphate</td> <td>90 - 100</td> <td>128-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	128-73-8												
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Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Sucrose</td> <td>90 - 100</td> <td>57-50-1</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1												
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EC-1			<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium magnesium oxide</td> <td>90 - 100</td> <td>37247-91-9</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium magnesium oxide	90 - 100	37247-91-9												
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MPA-170	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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Poz (Fly Ash)	Base	A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8									
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R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
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S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucopyranose, oligomeric, C10-16-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
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1207 S-9H

Marcellus Shale Horizontal
 Harrison County, WV

		1207 S-9H SHL				14218312.78N 1809818.86E					
Ground Elevation		1343'				1207 S-9H LP				14217750.53N 1809210.54E	
Azimuth		159.798°				1207 S-9H BHL				14204702.72N 1814011.8E	

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	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
	24"	20" 94# J-55	Fresh Water	0	135, 637, 731	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
			Coal	1004	1009					
			Surface / FW	0	1100					
	17.5"	13-3/8" 68# J-55 BTC	Little/Big Lime	1552 / 1594	1564 / 1644	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
			Injun / Ganiz (Storage)	1652 / 1982	1762 / 2052					
			Intermediate 1	0	2200					
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	2091 / 2182	2151 / 2192	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
			Gordon Stray / Gordon	2218 / 2278	2278 / 2465					
			5th Sand	2525	2537					
			Bayard / Warren	2591 / 2891	2601 / 2931					
	8.5" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Speechley	3211	3231	9.0ppg SOBMM	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
Balltown			3438	3448						
Benson			4529	4544						
8.5" Curve	Rhinestreet		6380	6646	11.5ppg-12.5ppg SOBMM					
	Cashaqua		6646	6746						
	Middlesex		6746	6778						
	West River		6778	6849						
	Burkett		6849	6859						
	Tully Limestone		6859	6967						
	Hamilton		6967	7076						
8.5" Lateral	Marcellus		7076	7158	11.5ppg-12.5ppg SOBMM					
	TMD / TVD (Production)		21581	7145						
		Onondaga	7158							

LP @ 7145' TVD / 7673' MD

8.5" Hole - Cemented Long String
 5-1/2" 23# P-110 HP CDC HTQ

+/-13808' ft Lateral

TD @ +/-7145' TVD
 +/-21581' MD

X=centralizers

PROPOSAL TO DRILL WITHIN DOMINION TRANSMISSION STORAGE FIELD

FIELD/ZONES: DOMINION FINK/KENNEDY/LOST CREEK -GANTZ SAND


WELL NAME: Neel 1207 S-9H

Well # 1207 S-9H

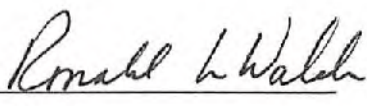
DISTRICT/COUNTY/STATE: Grant/Union/Harrison/WV

Submitted 
JOSH HINTON
HG ENERGY, LLC

DATE 9-10-19

Approved 
Dominion Energy Transmission

DATE 9/11/19

Approved 
Dominion Energy Transmission

DATE 9/11/19

Comments:

HG Energy has submitted this Casing & Cementing diagram and Drilling Plan to Dominion Transmission for Review. This signed document acknowledges that Dominion has reviewed the proposed casing program and the well's location within the Fink/Kennedy/Lost Creek storage field. This acknowledgement also confirms the proposed casing program is accurate to the proper storage zone as provided by HG Energy, LLC

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4703305974

WW-9
(4/16)

API Number 47 - _____ - _____
Operator's Well No. Noel 1207 S 9H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) Middle West Fork Creek Quadrangle West Milford 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: NA

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number TBD - At next anticipated well)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

*SDW
9/10/19*

Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected in a closed loop system, re-used or hauled to an approved disposal site or landfill.

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical - Air, Air/KCL, SCBM Horizontal - SCBM

-If oil based, what type? Synthetic, petroleum, etc. Synthetic

Additives to be used in drilling medium? Water, Soap, KCl, Barite, Base Oil, Wetting Agents

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Approved Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? See Attached

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

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Office of Oil and Gas

Company Official Signature Diane White
Company Official (Typed Name) Diane White
Company Official Title Agent

SEP 24 2019

WV Department of Environmental Protection

Subscribed and sworn before me this 3rd day of September, 2019

Cassidy A. Boardman

Notary Public

My commission expires 7/31/2022



4703305974

Form WW-9

Operator's Well No. Neel 1207 S-9H

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 28.602 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Maintain E&S controls through the drilling and completion process

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.

Upgrade E&S if needed per WV DEP E&S manual.

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WV Department of
Environmental Protection

Title: Oil & Gas Inspector

Date: 9/10/19

Field Reviewed? Yes No

Cuttings Disposal/Site Water

Cuttings -Haul off Company:

Eap Industries, Inc. DOT # 0876278
1875 Smith Two State Rd. Atlasburg, PA 15004
1-888-294-5227

Waste Management
200 Rangos Lane
Washington, PA 15301
724-222-3272

Environmental Coordination Services & Recycling (ECS&R)
8237 US Highway 19
Cochrannton, PA 16314
814-425-7778

Disposal Locations:

Apex Environmental, LLC Permit # 06-08488
11 County Road 78
Amsterdam, OH 43903
740-543-4889

Westmoreland Waste, LLC Permit # 100277
111 Conner Lane
Belle Vernon, PA 15012
724-929-7694

Sycamore Landfill Inc. Permit #R80-079001 05-2010
4301 Sycamore Ridge Road
Hurricane, WV 25526
304-562-2611

Max Environmental Technologies, Inc. Facility Permit # PAD004835146 / 301071
233 Max Lane
Yukon, PA 25968
724-722-3500

Max Environmental Technologies, Inc. Facility Permit # PAD05087072 / 301359
200 Max Drive
Bulger, PA 15019
724-796-1571

Waste Management Kelly Run Permit # 100563
1801 Park Side Drive
Elizabeth, PA 15037
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100592
3100 Hill Road
Library, PA 15129
724-348-7013
412-384-7569

Waste Management Arden Permit # 100172
200 Rangos Lane
Washington, PA 15301
724-222-3272

Waste Management Meadowfill Permit # 1032
1488 Dawson Drive
Bridgeport, WV 26330

Brooke County Landfill Permit # SWP-103-97 / WV 0109029
Rd 2 Box 410
Colliers, WV 26035
804-748-0014

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Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185
 Rt 1, Box 158A
 New Martinsville, WV 26035
 804-455-3800

Energy Solutions, LLC Permit # UT 2300249
 422 West 300 South
 Suite 200
 Salt Lake City, UT 84101

Energy Solutions Services, Inc. Permit # R-73006-124
 1560 Bear Creek Road
 Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MIP020906814
 3947 US 131 North, PO Box 1030
 Kalkaska, MI 49646
 231-258-9961

Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720488
 3790 State Route 7
 New Waterford, OH 44445
 830-882-0164

Nabors Completion & Production Services Co,
 PO Box 975682
 Dallas, TX 75397-5682

Select Energy Services, LLC
 PO Box 203997
 Dallas, TX 75320-3997

Nuverra Environmental Solutions
 11942 Veterans Memorial Highway
 Masontown, WV 26542

Mustang Oilfield Services LLC
 PO Box 739
 St. Clairsville, OH 43950

Wilson's Outdoor Services, LLC
 456 Cracraft Road
 Washington, PA 15301

Disposal Locations:

Solidification
 Waste Management, Arden Landfill Permit # 100172
 200 Rangos Lane
 Washington, PA 15301
 724-225-1589

Solidification/Incineration
 Soil Remediation, Inc. Permit # 02-20753
 6065 Arrel-Smith Road
 Lowellville, OH 44435
 830-536-6825

Adams #1 (Buckeye Brine, LLC)
 Permit # 34-031-2-7177
 23986 Airport Road
 Coshocton, OH 43812
 740-575-4484
 512-478-6545

CMS of Delaware Inc. DBA CMS Oilfield Serv
 301 Commerce Drive
 Moorestown, NJ 08057

Force, Inc.
 1380 Rte. 286 Hwy. E, Suite 303
 Indiana, PA 15701

Solo Construction
 P.O. Box 544
 St. Mary's, WV 26170

Equipment Transport
 1 Tyler Court
 Carlisle, PA 17015

Myers Well Service, -----
 2001 Ballpark Court
 Export, PA 15622

Burns Drilling & Excavating
 618 Crabapple Road P.O. Box
 Wind Ridge, PA 15380

Nichols 1-A (SWIW #13)
 Permit # 3862
 300 Cherrington Pkwy, Suite 200
 Coraopolis, PA 15108
 412-829-7275

Grosella (SWIW #34)
 Permit # 4096
 Rt. 88
 Garrettsville, OH
 719-275-4816

Kamble 1-D Well
 Permit # 3780
 7575 East Pike
 Norwich, Oh 43767
 614-648-8898
 740-786-6495

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Adams #2 (Buckeye Brine, LLC)
2205 Westover Road
Austin TX 78708
Permit # 84-081-2-7178
740-575-4484
612-478-6545

Adams #3 (Buckeye Brine, LLC)
Permit # 84-081-2-7241-00-00
2680 Exposition, Suite 117
Austin, TX 78703
612-478-6545

Mozana #1 Well (SWIW # 18)
Permit # 84-157-2-5511-00-00
5367 E. State Street
Newcomerstown, OH 43882
740-763-3966

Goff SWD #1 (SWIW # 27)
Permit # 84-119-2-8776-000
300 Cherrington Pkwy, Suite 200
Corapolis, PA 15108
412-829-7276

SOS D#1 (SWIW #12)
Permit # 84-059-2-4202-00-00
Silcor Oilfield Services, Inc.
2939 Hubbard Road
Youngstown, OH 44505

Dudley #1 UIC (SWIW #1)
Permit # 84-121-2-2459-00-00
Select Energy Services, LLC
7994 S. Pleasants Hwy
St. Marys, WV 26170
304-665-2652


OH UIC #1 Bu keya UIC Barneville 1 & 2
CNX Gas Company, LLC
1000 Consol Energy Drive
Permit # 84-013-2-0609-00-00
Permit # 84-013-2-0614-00-00
804-323-6568

US Steele 11385
Permit # 47-001-00561
200 Evergreen Drive
Waynesburg, PA 15730
804-323-6568

Chapln #7 UIC (SWIW #7)
Permit # 84-083-2-4197-00-00
Elkhead Gas & Oil Company
12168 Marne Rd. NE
Newark, OH 43055
740-763-3966

4703305974

Reclamation Plan For: NEEL 1207 PAD

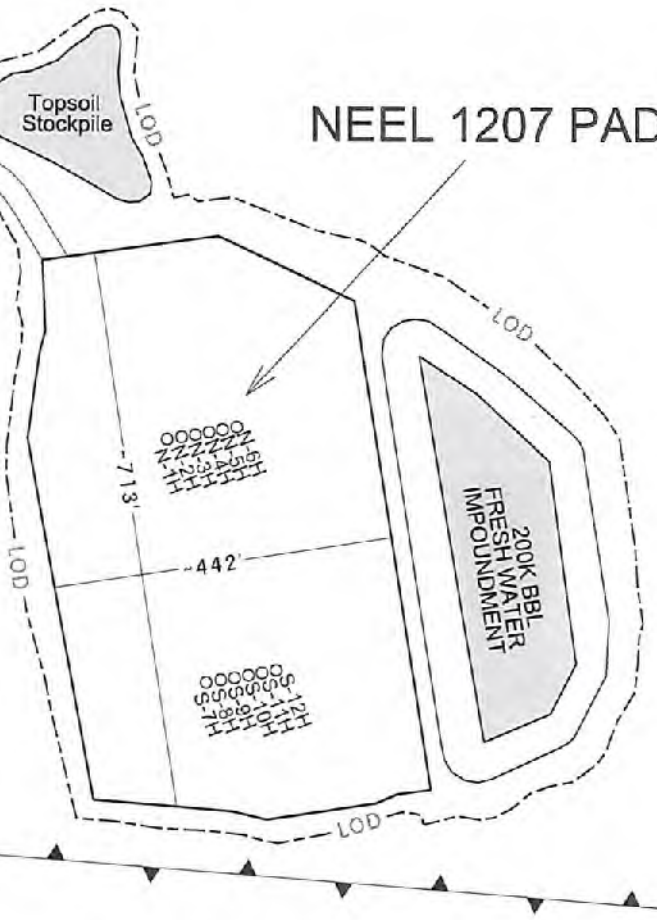
-2.0 Mi. to SLS 

-6,900' of Proposed Access Road to Nutter 1208 Pad
(See Construction Plan for Road Detail to SLS 19/20)

NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

Lisa M. Nutter
TM 445, Parcel 3

HG Energy II
Appalachia, LLC
TM 445, Parcel 5

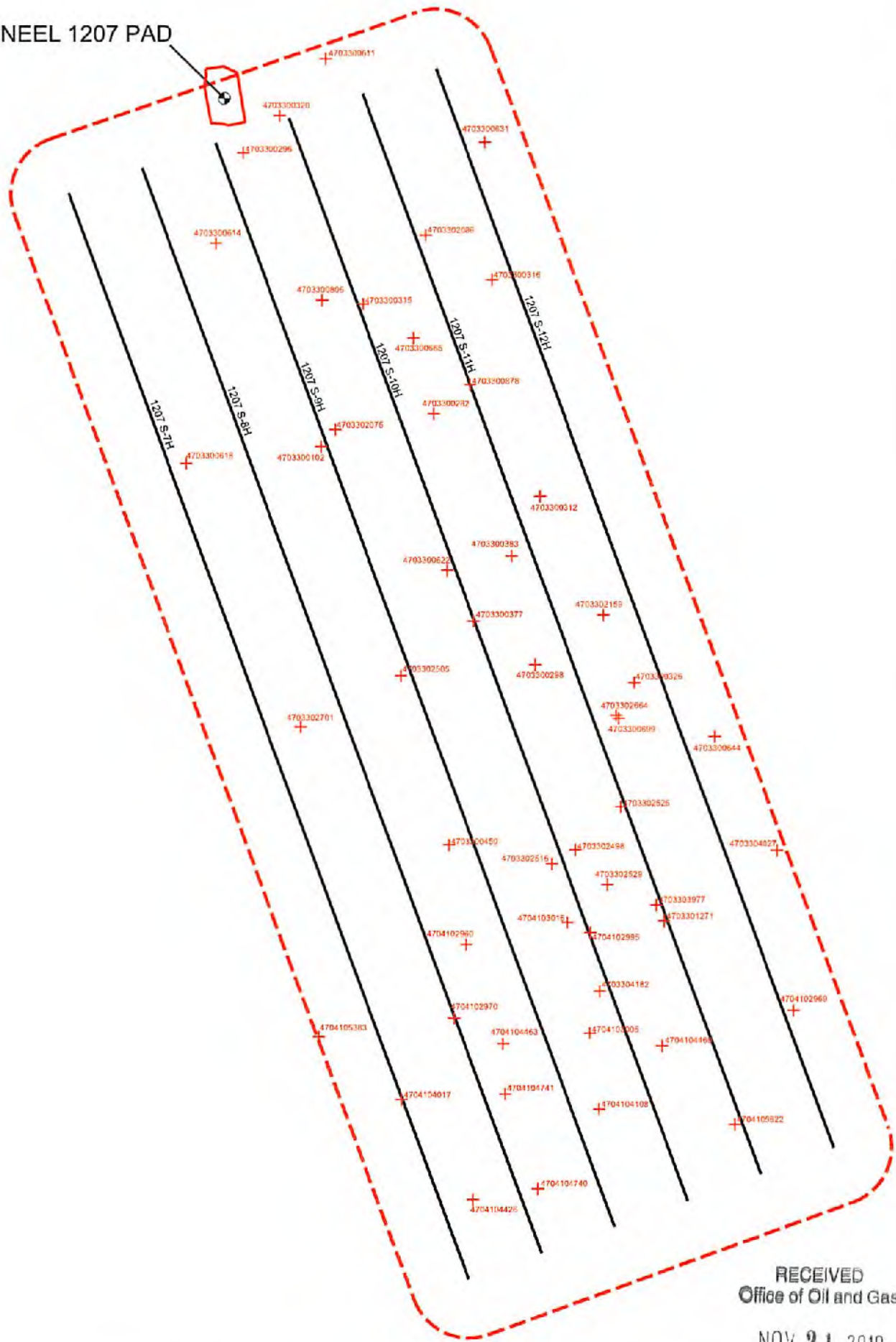


Mickey Petitto
TM 445, Parcel 13

Notes:

- REQUESTED PERMIT IS FOR DRILLING NEW HORIZONTAL WELLS.
- LOCATION AND ACCESS ROADS WILL BE CONSTRUCTED AS SHOWN ON THE ENGINEERED DRAWINGS WHICH ACCOMPANY THIS PERMIT APPLICATION. REFERENCE IS HEREBY MADE TO THOSE PLANS FOR MORE DETAIL ON E&S MEASURES TO BE TAKEN TO ENSURE COMPLIANCE WITH WVDEP RECLAMATION STANDARDS.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- NO DRILL PIT WILL BE CONSTRUCTED AND A CLOSED LOOP SYSTEM WILL BE UTILIZED TO HANDLE DRILL CUTTINGS.
- DRAWING NOT TO SCALE.

NEEL 1207 PAD



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Area of Review for:

NEEL 1207 UNIT

Proposed 1207 S-7H	Proposed 1207 S-8H
Proposed 1207 S-9H	Proposed 1207 S-10H
Proposed 1207 S-11H	Proposed 1207 S-12H

Grant District, Harrison County, W.Va.
Hackers Creek District, Lewis County, W.Va.

HG ENERGY, II APPALACHIA, LLC
5260 DuPont Road, Parkersburg, WV 26101



SCALE: 1" = 1,320'

WV Department of
Environmental Protection



4/12/2019

NOV 21 2019

EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

NEEL 1207 SOUTH UNIT AND PROPOSED WELLS S-7H, S-8H, S-9H, S-10H, S-11H & S-12H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4703300102	HARRISON	W L Hornor CW115	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2563	ACTIVE	39.139618	-80.398291
2	4703300282	HARRISON	T M Horner	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	2557	ACTIVE	39.140634	-80.393074
3	4703300296	HARRISON	E W Smith	Hope Natural Gas Company	UNKNOWN	UNKNOWN	-	PLUGGED	39.149923	-80.401645
4	4703300298	HARRISON	N J Fitzpatrick	Dominion Energy Transmission, Inc.	Gantz	Storage	2349	ACTIVE	39.131636	-80.388601
5	4703300312	HARRISON	A M Horner	Dominion Energy Transmission, Inc.	Gantz	Storage	1937	ACTIVE	39.137006	-80.388602
6	4703300315	HARRISON	B Chandler	Dominion Energy Transmission, Inc.	Thirty-foot	Dry w/ Gas Show	2076	PLUGGED	39.144553	-80.396241
7	4703300316	HARRISON	E. Robey	Dominion Energy Transmission, Inc.	Gantz	Dry w/ Gas Show	1935	PLUGGED	39.145278	-80.390465
8	4703300320	HARRISON	Dora B McWhorter	Dominion Energy Transmission Inc.	Gordon	Storage	2039	PLUGGED	39.151229	-80.399968
9	4703300326	HARRISON	D G McWhorter	Dominion Energy Transmission, Inc.	UNKNOWN	Storage	-	ACTIVE	39.131491	-80.384501
10	4703300377	HARRISON	J H Boyles	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Storage	2641	ACTIVE	39.133052	-80.391371
11	4703300383	HARRISON	E J Ward	Dominion Energy Transmission, Inc.	Gantz	Storage	2100	ACTIVE	39.135409	-80.389905
12	4703300450	HARRISON	E R Davis	Dominion Energy Transmission, Inc.	Gordon	Storage	2201	PLUGGED	39.125395	-80.392514
13	4703300611	HARRISON	Willard B/B Westfall	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4430	ACTIVE	39.152826	-80.397359
14	4703300614	HARRISON	Appalach Rylties	Dominion Energy Transmission, Inc.	Benson	Dry	4660	PLUGGED	39.14673	-80.403508
15	4703300618	HARRISON	Howard Neeley	Dominion Energy Transmission, Inc.	Benson	Gas	4625	ACTIVE	39.139182	-80.404626
16	4703300622	HARRISON	Martin McWhorter	Dominion Energy Transmission, Inc.	Benson	Gas	4500	PLUGGED	39.135119	-80.392515
17	4703300631	HARRISON	C E Hickman	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2094	ACTIVE	39.150214	-80.390651
18	4703300644	HARRISON	P M White	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1825	ACTIVE	39.129169	-80.380402
19	4703300665	HARRISON	Horner Heirs	Dominion Energy Transmission, Inc.	Fifth	Storage	2345	ACTIVE	39.143537	-80.394564
20	4703300699	HARRISON	Kenneth F Jarrett	Dominion Energy Transmission, Inc.	Gantz	Storage	1850	PLUGGED	39.130185	-80.385993
21	4703300806	HARRISON	Aplchn Rylt CW117	Dominion Energy Transmission, Inc.	Greenland Gap Fm	UNKNOWN	2204	PLUGGED	39.144698	-80.398105
22	4703300878	HARRISON	Robert Martin	Dominion Energy Transmission, Inc.	Benson	Gas	4417	ACTIVE	39.14165	-80.391397
23	4703301271	HARRISON	E McWhorter	Dominion Energy Transmission, Inc.	Gordon	Gas	2029	PLUGGED	39.122338	-80.383003
24	4703302075	HARRISON	W L Hornor	Dominion Energy Transmission, Inc.	Benson	Gas	4685	ACTIVE	39.140198	-80.397173
25	4703302086	HARRISON	W L Horner	Dominion Energy Transmission, Inc.	Alexander	Gas	4825	ACTIVE	39.14702	-80.39326
26	4703302159	HARRISON	D E McWhorter	Dominion Energy Transmission, Inc.	Alexander	Gas	4890	ACTIVE	39.133958	-80.384502
27	4703302498	HARRISON	J W Rogers CW-210	Dominion Energy Transmission, Inc.	Fifty-foot	Observation	1900	PLUGGED	39.125181	-80.386766
28	4703302505	HARRISON	N McWhorter CW-216	Dominion Energy Transmission, Inc.	Hampshire Grp	Observation	2186	ACTIVE	39.1312	-80.394936
29	4703302516	HARRISON	J W Rogers CW-251	Dominion Energy Transmission, Inc.	Dunkard Group	Observation	650	ACTIVE	39.124692	-80.387854
30	4703302526	HARRISON	Pauline M White cw-252	Dominion Energy Transmission, Inc.	Mississippian	Observation	162	ACTIVE	39.126702	-80.384688
31	4703302529	HARRISON	J W Rogers CW-254	Dominion Energy Transmission, Inc.	Mahonig Ss/Big Dunk	Storage	414	ABANDONED	39.124223	-80.384307
32	4703302664	HARRISON	Moore Const CW-258	Dominion Energy Transmission, Inc.	3rd Salt Sand	Storage	614	ACTIVE	39.129749	-80.38506
33	4703302701	HARRISON	Siro Inc 2	Abarta Oil & Gas Company	Alexander	Gas	4743	ACTIVE	39.128878	-80.399037
34	4703303977	HARRISON	Jack Shock etux 1	Ross & Wharton Gas Company, Inc.	Greenland Gap Fm	Gas	4715	ACTIVE	39.123208	-80.383003

WV Department of Environmental Protection

**EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:
NEEL 1207 SOUTH UNIT AND PROPOSED WELLS S-7H, S-8H, S-9H, S-10H, S-11H & S-12H**

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
35	4703304027	HARRISON	Jack Shock etux 2	Ross & Wharton Gas Company, Inc.	Benson	Gas	4400	ACTIVE	39.125093	-80.377604
36	4703304182	HARRISON	Jack Shock Hrs 4	Ross & Wharton Gas Company, Inc.	Alexander	Gas	4819	ACTIVE	39.120162	-80.385795
37	4704102960	LEWIS	H C Davis CW 248	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1900	ACTIVE	39.122193	-80.391567
38	4704102969	LEWIS	M Edmonds cw-212	Dominion Energy Transmission, Inc.	Thirty-foot	Observation	2067	ACTIVE	39.119654	-80.376588
39	4704102970	LEWIS	H C Davis (#3679)	Dominion Energy Transmission, Inc.	UNKNOWN	UNKNOWN	2506	PLUGGED	39.119437	-80.391939
40	4704102995	LEWIS	H C Davis	Dominion Energy Transmission, Inc.	Dunkard Group	Observation	175	ACTIVE	39.122121	-80.386061
41	4704103005	LEWIS	Virginia A Nepps	Dominion Energy Transmission, Inc.	UNKNOWN	UNKNOWN	-	PLUGGED	39.118712	-80.386167
42	4704103016	LEWIS	H C Davis	Dominion Energy Transmission, Inc.	Dunkard Group	Observation	147	ACTIVE	39.122338	-80.387285
43	4704104017	LEWIS	John W C Kolb 1	Ross & Wharton Gas Company, Inc.	Benson	Gas	4715	ACTIVE	39.116392	-80.39473
44	4704104108	LEWIS	John W C Kolb 2	Ross & Wharton Gas Company, Inc.	Benson	Gas	4610	ACTIVE	39.116102	-80.385608
45	4704104426	LEWIS	S.B. Waggoner	Ross & Wharton Gas Company, Inc.	UNKNOWN	House Gas	-	ACTIVE	39.112863	-80.391542
46	4704104463	LEWIS	Hugh C/M Davis	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4597	ACTIVE	39.118132	-80.390449
47	4704104469	LEWIS	Nepps 1	Ross & Wharton Gas Company, Inc.	Alexander	Gas	5100	ACTIVE	39.118132	-80.382258
48	4704104740	LEWIS	John H Kolb etal	Ross & Wharton Gas Company, Inc.	Brallier	Gas	6175	ACTIVE	39.113346	-80.388586
49	4704104741	LEWIS	John H Kolb etal	Ross & Wharton Gas Company, Inc.	Brallier	Gas	6021	ACTIVE	39.116682	-80.390076
50	4704105383	LEWIS	Christine White/W C White	Dominion Exploration & Production	Brallier	Gas	4946	ACTIVE	39.118857	-80.39864
51	4704105622	LEWIS	Adler Burchett	Ross & Wharton Gas Company, Inc.	Brallier	Gas	5008	ACTIVE	39.115453	-80.379632

SOURCE: WVGES DATASET (2017) and WVDEP WEBSITE

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Environmental Protection



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

January 7, 2019

Dominion Energy Transmission
Attn: Charles Cunningham
2397 Davisson Run Road
Clarksburg, WV 26301

RE: Area of Review – Neel 1207 Well Pad (N-1H to N-6H)
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, is developing a Marcellus pad (Neel 1207 pad) located in Harrison County, WV. As an owner or operator of a conventional natural gas well in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 7200' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Neel 1207 Pad during the fourth quarter of 2019. We have identified conventional natural gas wells operated by your company within 500' of one of the newly planned laterals (Neel 1207 N-1H). A plat for the well is attached.

We recommend conventional well operators conduct the following activities before, during and after the fracturing operation.

1. Inspect surface equipment prior to fracturing to establish integrity and well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in gas, water or pressure.
3. Inspect or install master valves rated at 3,000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and HG Energy if any changes in water, gas production, pressure or other anomalies are identified.

Should you have any questions or desire further information, please contact me at 304-420-1119 or dwhite@hgenergyllc.com. You may also contact the WV Office of Oil and Gas at 304-926-0444.

Sincerely,

Diane White

Diane White

Enclosure



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

January 7, 2019

Antero Resources
535 White Oaks Blvd
Bridgeport, WV 26330

RE: Area of Review – Neel 1207 Well Pad (N-1H to N-6H)
Hydraulic Fracturing Notice

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Sincerely,

Diane White

Diane White

Enclosure

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Office of Oil and Gas
SEP 24 2019
WV Department of
Environmental Protection



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

January 7, 2019

EQT Production Company
115 Professional Place
Bridgeport, WV 26330

RE: Area of Review – Neel 1207 Well Pad (N-1H to N-6H)
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1. Inspect surface equipment prior to fracturing to establish integrity and well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in gas, water or pressure.
3. Inspect or install master valves rated at 3,000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and HG Energy if any changes in water, gas production, pressure or other anomalies are identified.

Should you have any questions or desire further information, please contact me at 304-420-1119 or dwhite@hgenergyllc.com. You may also contact the WV Office of Oil and Gas at 304-926-0444.

Sincerely,

Diane White

Diane White

Enclosure

RECEIVED
Office of Oil and Gas

SEP 24 2019

WV Department of
Environmental Protection



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

January 7, 2019

Alliance Petroleum Company
214 Warner Street
Marietta, OH 45750

RE: Area of Review – Neel 1207 Well Pad (N-1H to N-6H)
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, is developing a Marcellus pad (Neel 1207 pad) located in Harrison County, WV. As an owner or operator of a conventional natural gas well in this area, we are requesting your assistance in this matter.

Due to the apparent presence of unique geological conditions, the potential for communication between deep geologic zones exists in this area. This potential communication, via natural gas, water or both, may occur between hydraulically fractured wells in the Marcellus formation (approximately 7200' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Neel 1207 Pad during the fourth quarter of 2019. We have identified conventional natural gas wells operated by your company within 500' of one of the newly planned laterals (Neel 1207 N-1H). A plat for the well is attached.

We recommend conventional well operators conduct the following activities before, during and after the fracturing operation.

1. Inspect surface equipment prior to fracturing to establish integrity and well conditions.
2. Observe wells closely during and after fracturing and monitor for abnormal increases in gas, water or pressure.
3. Inspect or install master valves rated at 3,000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and HG Energy if any changes in water, gas production, pressure or other anomalies are identified.

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Sincerely,

Diane White

Diane White

Enclosure

RECEIVED
Office of Oil and Gas
SEP 24 2019
WV Department of
Environmental Protection



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

January 7, 2019

Ross & Wharton Gas Company
29 Morton Street
Buckhannon, WV 26201

RE: Area of Review – Neel 1207 Well Pad (N-1H to N-6H)
Hydraulic Fracturing Notice

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2. Observe wells closely during and after fracturing and monitor for abnormal increases in gas, water or pressure.
3. Inspect or install master valves rated at 3,000 psi or other necessary equipment for wellhead integrity.
4. Notify the OOG and HG Energy if any changes in water, gas production, pressure or other anomalies are identified.

Should you have any questions or desire further information, please contact me at 304-420-1119 or dwhite@hgenergyllc.com. You may also contact the WV Office of Oil and Gas at 304-926-0444.

Sincerely,

Diane White

Diane White

Enclosure

RECEIVED
Office of Oil and Gas
SEP 24 2019

WV Department of
Environmental Protection

HG Energy, LLC
 Certified Mail Receipt
 Neel 1207 N-1H
 Area of Review - Notice to Well Owners

7018 0680 0001 1980 3736

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com.

OFFICIAL USE

Certified Mail Fee \$ 3.45

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 2.75

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$ 1.21

Total Postage and Fees \$ 7.41

Sent to 1207NIH AOR

Street and Apt. No., or PO Box No. Alliance Petroleum Company

214 Warner Street

City, State, ZIP+4® Marietta OH 45750

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

PAKEL... JAN 10 2019 Postmark Here

7018 0680 0001 1980 3729

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
 Domestic Mail Only

For delivery information, visit our website at www.usps.com.

OFFICIAL USE

Certified Mail Fee \$ 3.45

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 2.75

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$ 1.21

Total Postage and Fees \$ 7.41

Sent to 1207NIH AOR

Street and Apt. No., or PO Box No. EQT Production Company

115 Professional Place

City, State, ZIP+4® Bridgeport WV 26330

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

BRIDGEPORT WV 26101 JAN 10 2019 Postmark Here

RECEIVED
 Office of Oil and Gas
 SEP 24 2019
 WV Department of
 Environmental Protection

HG Energy, LLC
 Certified Mail Receipt
 Neel 1207 N-1H
 IMP-1A Impoundment Registration

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
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For delivery information, visit our website at www.usps.com®.

OFFICIAL RECEIPT

PARKERSBURG, WV 26101
 JAN 08 2019
 USPS IMP 1A

7018 0680 0001 1980 4627

Certified Mail Fee	\$ 3.45
Extra Services & Fees (check box, add fee)	
<input checked="" type="checkbox"/> Return Receipt (hardcopy)	\$ 2.75
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$ 1.21
Total Postage and Fees	\$ 7.41
Sent To	WV DEP - Office O&G - Impoundment Reg
Street and Apt. No., or PO Box No.	601 57th Street
City, State, ZIP+4®	Charleston WV 25304

PS Form 3800, April 2015 PSN 7530-02-000-9017 See Reverse for Instructions.

RECEIVED
 Office of Oil and Gas
 SEP 24 2019
 WV Department of
 Environmental Protection

HG Energy II Appalachia, LLC

Site Safety Plan

**Neel 1207 Well Pad
104 Hidden Valley Rd Jane Lew
Harrison County, WV 26378**

December 2018: Version 1

**For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas**

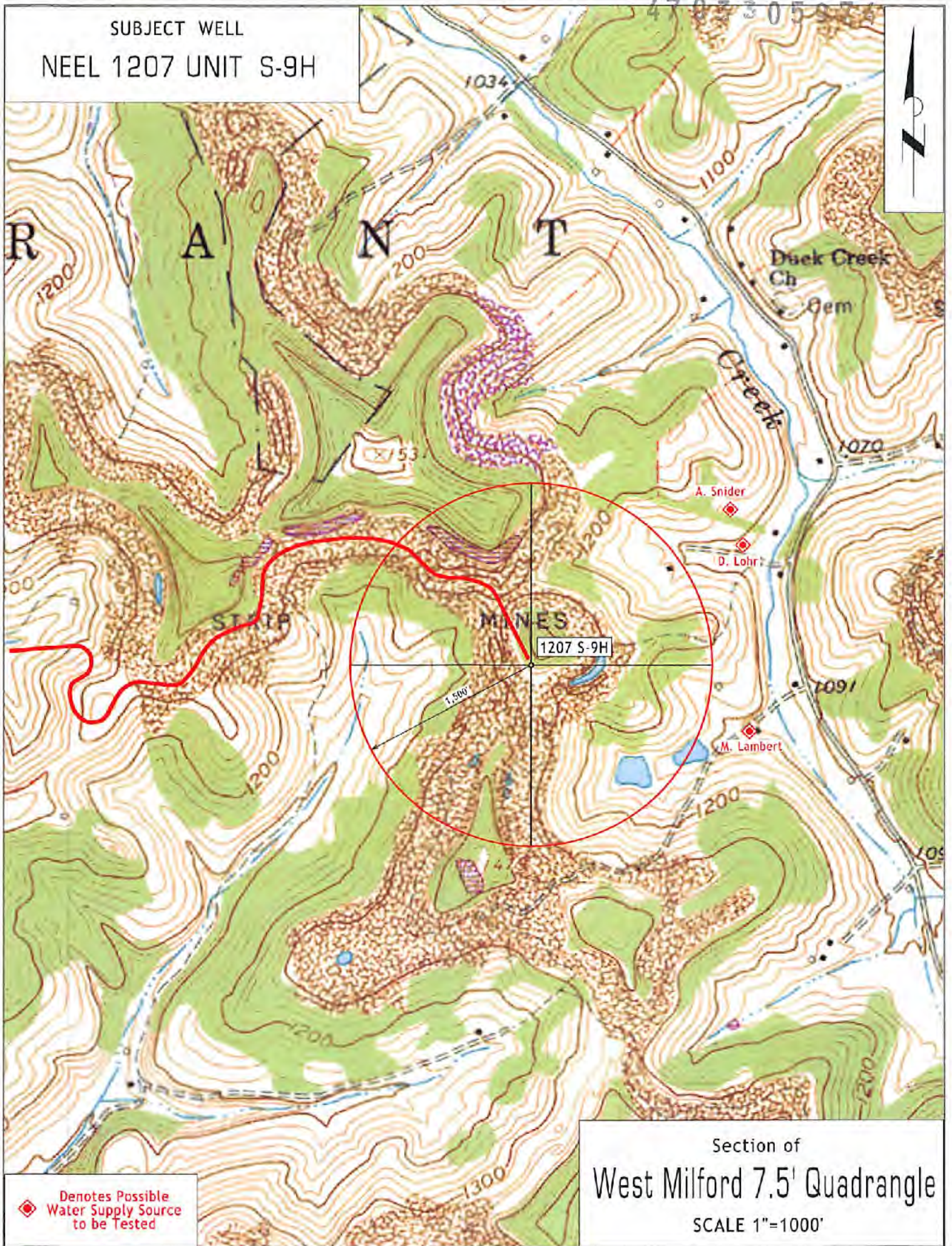
**HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101**

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Office of Oil and Gas
SEP 24 2019
WV Department of
Environmental Protection

SDW
1/4/19
SDW
9/10/19

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Office of Oil and Gas
JAN 15 2019
WV Department of
Environmental Protection

SUBJECT WELL
NEEL 1207 UNIT S-9H



Denotes Possible
Water Supply Source
to be Tested

Section of
West Milford 7.5' Quadrangle
SCALE 1"=1000'

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

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

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

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

See Attached 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

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
 Its: Accountant

RECEIVED
Office of Oil and Gas
OCT - 3 2019
WV Department of
Environmental Protection

HG Energy II Appalachia, LLC
1207 S-9H Lease Chain

1207 S TRACT #	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE				
3	LC058480	12-0445-0005-0000 12-0445-0005-0001	Q100813000	DORA B. MCWHORTER, WIDOW; AND EVERETT EDMONDS AND GLADYS EDMONDS, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	819	344				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1139	509				
				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 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	1584	942				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	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				
				2	LC094208 LC020942	12-0445-0012-000 12-0445-0003-0000 253571000	Q101052000	A. J. SMITH AND L. F. SMITH, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	193	277
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 FARMOUT AGREEMENT	1522					33				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543					1235				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584					942				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600					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				
5	LC072051	12-0445-0013-000 12-445-0013-0001	Q100403000					UNION NATIONAL BANK, TRUSTEE UNDER AGREEMENT OF THE GORE-MORRIS TRUST DATED AUGUST 25, 1966	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	994	496
								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 FARMOUT AGREEMENT	1522	33				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	125				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	1235				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584	942				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	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				
						12-0445-0024-0000 12-0445-0025-0000 12-0445-0026-0000 12-0445-0035-0000 12-0445-0035-0001		JOHN T. FREEMAN AND ESTELA V. FREEMAN, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	113	585
								SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	204	402
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				

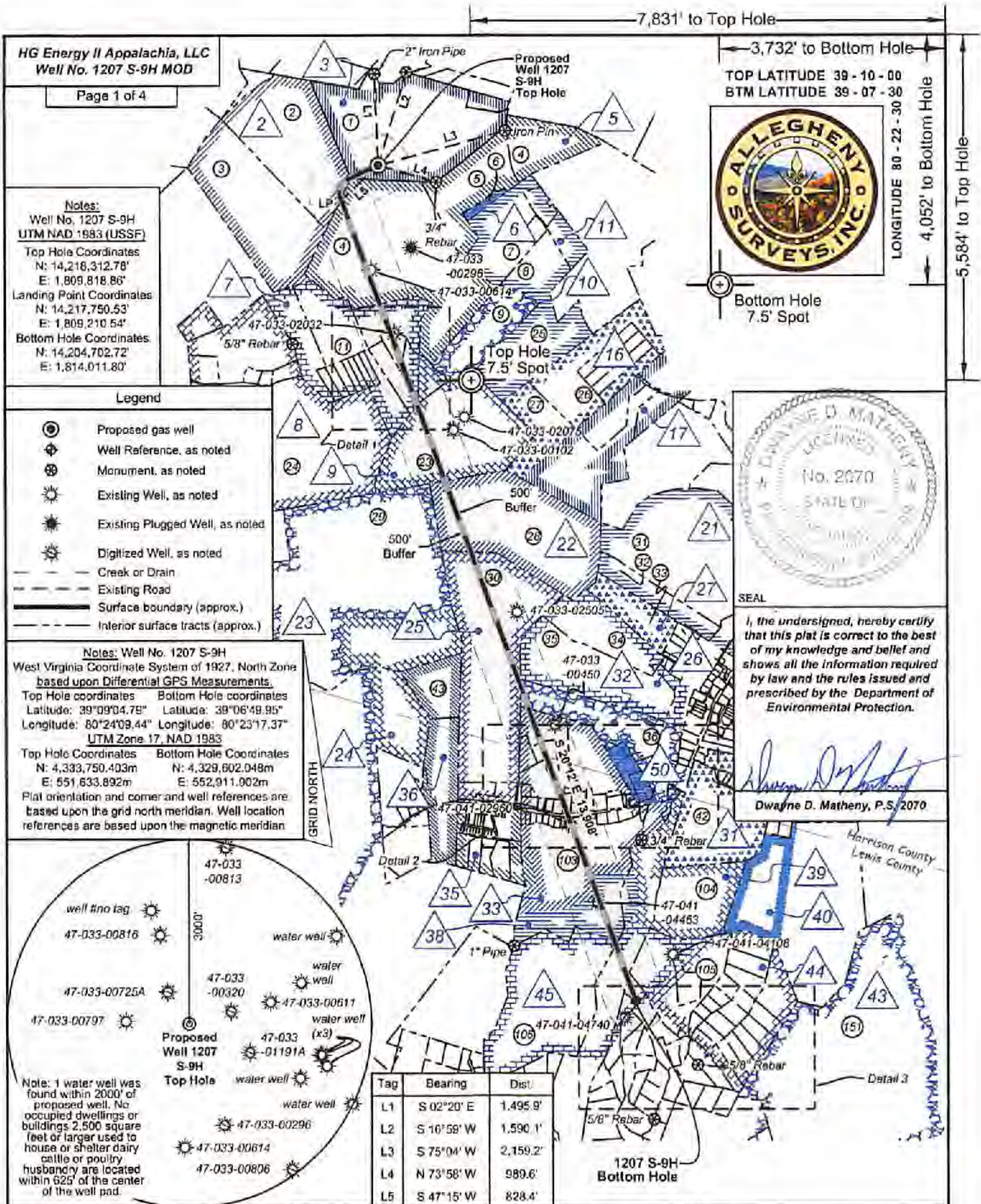
7	LC008456	12-0445-0036-0000 12-0445-0037-0000 12-0445-0038-0000 12-0445-0039-0000 12-0445-0040-0000 12-0445-0041-0000 12-0445-0042-0000 12-0445-0042-0001	Q101002000	Dominion Transmission, Inc.	CNX Gas Company LLC	Memorandum Farmout Agreement	1522	33
				CNX Gas Company LLC	Noble Energy, Inc.	Limited 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	1584	942
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	1600	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
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	1621	1295
				Hazel G. Chandler	Consolidated Gas Supply Corporation	Not Less Than 1/8	935	935
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	1136	250
10	LC076834	12-0445-0028-0000	Q100516000	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 Farmout Agreement	1522	33
				Dominion Transmission, Inc.	CNX Gas Company LLC	First Amendment to Memorandum of Farmout Agreement	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	1584	942
				Noble Energy, Inc.	HG Energy II Appalachia, LLC	Assignment	1600	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
9	LC008498	12-0445-0047-0000 12-0445-0043-0000	Q100544000	Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Third Amendment to Memorandum of Farmout Agreement	1621	1295
				Dominion Energy Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment (68%)	LEWIS 736	220
				William H. Horner and Fannie M. Horner	South Penn Oil Company	Not Less Than 1/8	121	35
				South Penn Oil Company	Hope Natural Gas Company	Assignment	204	402
				Hope Natural Gas Company	Consolidated Gas Supply Corporation	Confirmatory Deed	903	179
				Consolidated Gas Supply Corporation	Consolidated Gas Transmission Corporation	Assignment	1138	509
				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 Farmout Agreement	1522	33
				CNX Gas Company LLC	Noble Energy, Inc.	Limited Partial Assignment (50%)	1543	1235
22	LC066799	12-0465-0010-0000	Q100888000	Dominion Transmission, Inc.	CNX Gas Company LLC and Noble Energy, Inc.	Partial Assignment (32%)	1576	125
				CNX Gas Company LLC	Noble Energy, Inc.	Assignment	1584	942
				Dominion Transmission, Inc.	HG Energy II Appalachia, LLC	Assignment	1600	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
				Nathan G. McWhorter and Dora E. McWhorter, his wife; John R. Boyles, single; Ray J. Boyles and Ethel Boyles, his wife; Marie Randolph and Brooks Randolph, her husband; Georgia M. Barrett and Charles A. Barrett, her husband; and Dorsey Jarvis, husband of Oga Jarvis	Hope Natural Gas Company	Not Less Than 1/8	781	56
				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 Farmout Agreement	1522	33				
Dominion Energy Transmission, Inc.	CNX Gas Company LLC	First Amendment to Farmout Agreement	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	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295
23	LC009809	p/o 17-12-0465-0004-0000; p/o 17-12-0465-0004-0001; 21-04-008C-0049-0001; 21-04-008C-0049-0002; 21-04-008C-0052-0000; 21-04-008C-0052-0001; 21-04-008C-0052-0002; 21-04-008C-0055-0000; 21-04-008C-0055-0001; 21-04-008C-0055-0002; 21-04-008C-0055-0003	Q101005000	JAMES W. JACKSON AND S. A. JACKSON, HIS WIFE	SOUTH PENN OIL COMPANY	NOT LESS THAN 1/8	58	425
				SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT (GAS)	73	272
				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	FARMOUT AGREEMENT	672	154
				SOUTH PENN OIL COMPANY	PENNZOIL COMPANY	MERGER/NAME CHANGE	5	564
				PENNZOIL COMPANY	PENNZOIL PRODUCTS COMPANY	ASSIGNMENT	454	34
				PENNZOIL COMPANY	PENNZOIL PRODUCTS COMPANY	ASSIGNMENT	460	139
				PENNZOIL PRODUCTS COMPANY	PENNZOIL EXPLORATION AND PRODUCTION COMPANY	ASSIGNMENT	551	627
				PENNZOIL EXPLORATION AND PRODUCTION COMPANY	PENNZENERGY EXPLORATION AND PRODUCTION, LLC	MERGER/NAME CHANGE	8	343
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	1524	491
				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	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
25	LC066750	04-0006-0001-0000 04-0006-0002-0000 04-0006-0002-0001	Q101101000	NATHAN G. MCWHORTER AND DORA E. MCWHORTER, HIS WIFE; AND MAUDE S. BUTCHER, WIDOW	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	HARRISON 779 LEWIS 243	94 191
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	HARRISON 903 LEWIS 294	179 89
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	HARRISON 1136 LEWIS 425	250 127
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	HARRISON 51 WVSOS	795
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	HARRISON 58 WVSOS	362
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	HARRISON 1522 LEWIS 672	33 154
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	HARRISON 1524	491
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	HARRISON 1543 LEWIS 684	1235 57
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	HARRISON 1576 LEWIS 712	125 848
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	HARRISON 1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	HARRISON 1600	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	HARRISON 1601 LEWIS 723	581 499
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	HARRISON 1621 LEWIS 734	1295 558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	LEWIS 736	220 ✓
26	LC066725	12-0466-0001-0000 12-0466-0001-0001 12-0466-0020-0000 p/o 04-009C-0006-0000	Q100881000	HUNTER COOPER AND LUELLA COOPER, HIS WIFE; J.C. MCWHORTER AND GRACE A. MCWHORTER, HIS WIFE; AND IDEN MCWHORTER AND OKLA MCWHORTER, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	779	24
				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 FARMOUT AGREEMENT	1522	33
				DOMINION ENERGY TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO FARMOUT AGREEMENT	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	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295 ✓
32	LC066797	12-0466-0039-0001 12-0466-0059-0000	Q100623000	JAMES W. ROGERS AND JACQUELINE W. ROGERS, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	781	68
				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 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	1584	942
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295 ✓
				33	LC076676	04-009C-0001-0000; 04-009C-0002-0000; 04-009C-0003-0000; 04-009C-0003-0001; 04-009C-0003-0002; 04-009C-0004-0000; 04-009C-0005-0000; 004-009C-0005-0001; 04-009C-0005-0002; 04-009C-0005-0003; 04-009C-0005-0004; 04-009C-0005-0005; 04-009C-0005-0006; 04-009C-0005-0007; 04-009C-0005-0008; 04-009C-0005-0009; 04-009C-0005-0010; 04-009C-0005-0011; 04-009C-0005-0012; 04-009C-0005-0013; 04-009C-0005-0014; 04-009C-0006-0000; 04-009C-0006-0001; 04-009C-0006	Q100588000	HUGH C. DAVIS AND MARTHA L. DAVIS, HIS WIFE; JANE D. POST AND JACOB S. POST, HER HUSBAND; JESSIE S. DAVIS, WIDOW; GEORGIA A. BARNES, WIDOW; AND LEWIS E. DAVIS AND LENORA W. DAVIS, HIS WIFE
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 OF 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					170
DOMINION TRANSMISSION INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS					

		0003; 04-009C-0006-0004; 04-009C-0006-0005; 04-009C-0006-0006; 04-009C-0006-0007; 04-009C-0006-0008; 04-009C-0006-0009; 04-009C-0006-0010; 04-009C-0006-0011; 04-009C-0006-0012; 04-009C-0006-0013; 04-009C-0006-0014; 04-009C-0006-0015; 04-009C-0006-0016; 04-009C-0006-0017; 04-009C-0007-0000; 04-009C-0007-0001; 04-009C-0007-0002-0000; 04-009C-0050-0000; unassessed acreage underlying I-79		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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				HUGH C. DAVIS AND MARTHA L. DAVIS, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	303	297
				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 OF 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	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				CARL A. NEPPS AND VIRGINIA A. NEPPS, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	242	211
				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 OF 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	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
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220
				A. L. WAGGONER ET AL	WEST VIRGINIA CENTRAL GAS COMPANY	NOT LESS THAN 1/8	82	561
				WEST VIRGINIA CENTRAL GAS COMPANY	Eastern Oil Company	ASSIGNMENT	116	427
				Eastern Oil Company	Cumberland & Allegheny Gas Company	ASSIGNMENT	116	531
				WEST VIRGINIA CENTRAL GAS COMPANY	Cumberland & Allegheny Gas Company	ASSIGNMENT	119	51
				Cumberland & Allegheny Gas Company	Standard Gas Company	ASSIGNMENT	309	427
				Standard Gas Company	Mike Ross, Inc	ASSIGNMENT	491	301

44	LC076663	04-09C-0016-0002; p/o 04-09C-0016-0003; 04-09C-0016-0004; 04-09C-0016-0005; p/o 04-09C-0016-0007; 04-09C-0016-0008; p/o 04-09C-0016-0011; 04-09C-0016-0017; 04-09C-0016-0018; p/o 04-09C-0016-0019; 04-09C-0016-0024; 04-09C-0016-0025; 04-09C-0016-0026; 04-09C-0016-0027; 04-09C-0016-0030; 04-09C-0016-0031; p/o 04-09C-0016-0041; p/o 04-09C-0016-0043; p/o 04-09C-0016-0044; p/o 04-09C-0016-0049; 04-09C-0016-0050; p/o 04-09C-0016-0052; 04-09C-0016-0057	Q100326000	Mike Ross, Inc	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1625	409	✓
				J. W. C. KOLB AND MARION L. KOLB, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	303	278	
				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 OF 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	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	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	734	558	
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT (68%)	736	220	✓				



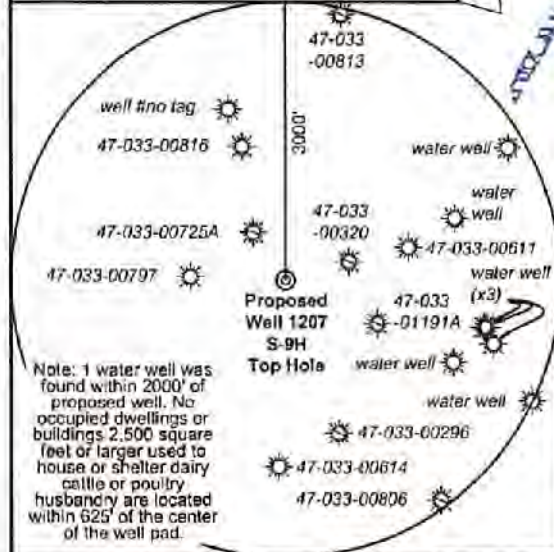
HG Energy II Appalachia, LLC
Well No. 1207 S-9H MOD

Page 1 of 4

Notes:
 Well No. 1207 S-9H
 UTM NAD 1983 (USSF)
 Top Hole Coordinates
 N: 14,218,312.78'
 E: 1,809,818.86'
 Landing Point Coordinates
 N: 14,217,750.53'
 E: 1,809,210.54'
 Bottom Hole Coordinates
 N: 14,204,702.72'
 E: 1,814,011.80'

- Legend**
- Proposed gas well
 - Well Reference, as noted
 - Monument, as noted
 - Existing Well, as noted
 - Existing Plugged Well, as noted
 - Digitized Well, as noted
 - Creek or Drain
 - Existing Road
 - Surface boundary (approx.)
 - Interior surface tracts (approx.)

Notes: Well No. 1207 S-9H
 West Virginia Coordinate System of 1927, North Zone
 based upon Differential GPS Measurements.
 Top Hole coordinates Bottom Hole coordinates
 Latitude: 39°09'04.78" Latitude: 39°06'49.95"
 Longitude: 80°24'09.44" Longitude: 80°23'17.37"
 UTM Zone 17, NAD 1983
 Top Hole Coordinates Bottom Hole Coordinates
 N: 4,333,750.403m N: 4,329,602.048m
 E: 551,633.892m E: 552,911.002m
 Plat orientation and corner and well references are
 based upon the grid north meridian. Well location
 references are based upon the magnetic meridian



Tag	Bearing	Dist.
L1	S 02°20' E	1,495.9'
L2	S 16°58' W	1,590.1'
L3	S 75°04' W	2,159.2'
L4	N 73°58' W	989.6'
L5	S 47°15' W	828.4'

7,831' to Top Hole

3,732' to Bottom Hole

TOP LATITUDE 39 - 10 - 00
 BTM LATITUDE 39 - 07 - 30

LONGITUDE 80 - 22 - 30

4,052' to Bottom Hole

5,584' to Top Hole

Bottom Hole 7.5' Spot

ALLEGHENY SURVEYS, INC.

SEAL

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, P.S. 2070

FILE NO: 296-36-G-18
 DRAWING NO: 1207 S-9H 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: September 30 2019
 OPERATOR'S WELL NO. 1207 S-9H
 API WELL NO
 47 - 033 - 05974
 STATE COUNTY PERMIT

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

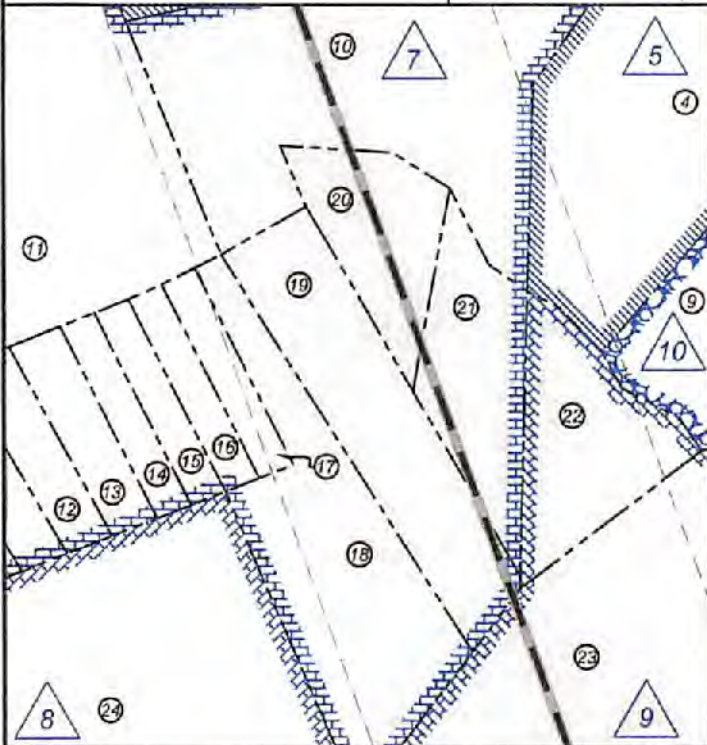
LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek
 DISTRICT: Grant QUADRANGLE: Top: West Milford Btm: Weston
 COUNTY: Harrison
 SURFACE OWNER: HG Energy II Appalachia, LLC ACREAGE: 89.07
 ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 103.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD 7,145' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,582' 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

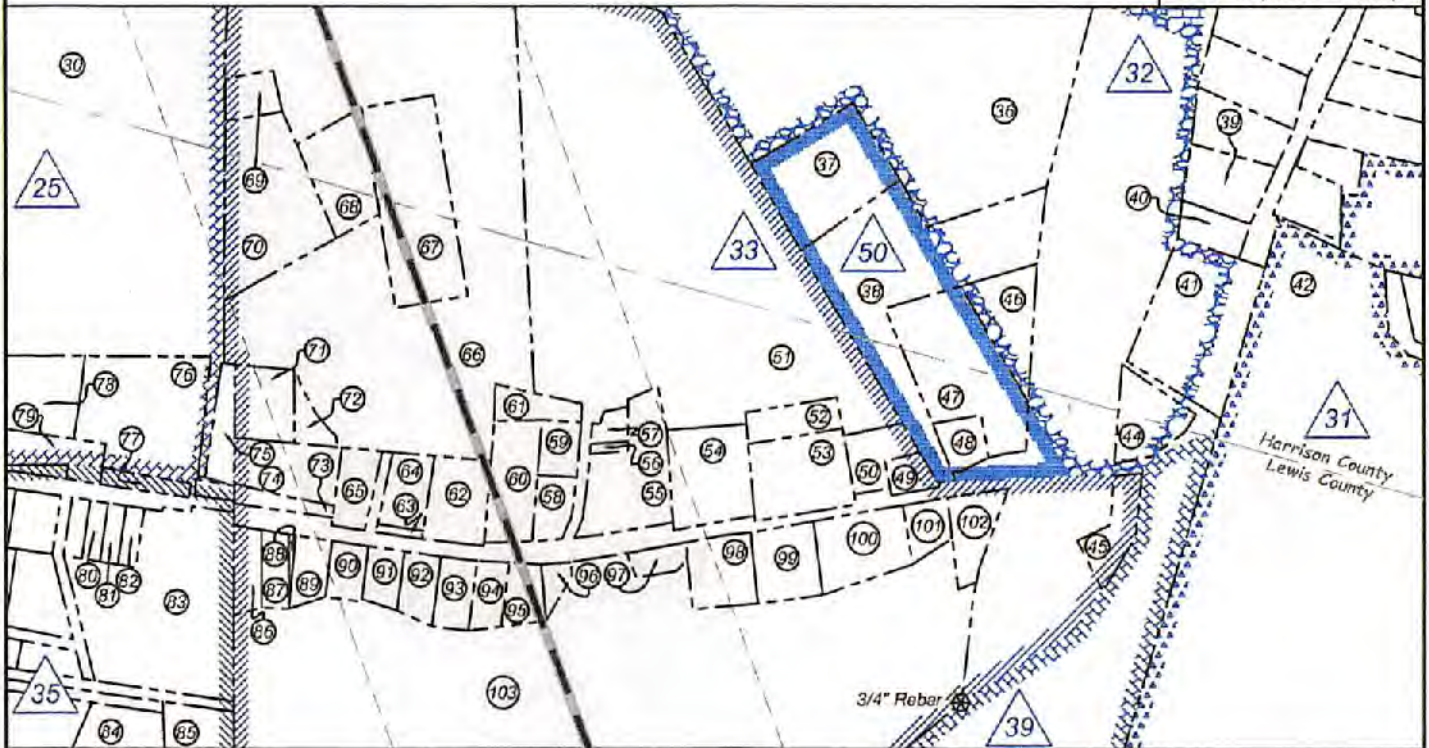


Detail 1 (Scale 1"=500')



ID	Lease
2	A.J. Smith, et ux
3	Dora B. McWhorter, et al
5	Union National Bank Trustee of Gore Morris
6	Martha E. Lambert
7	John T. Freeman
8	Waller Neely, et al
9	William H. & Fannie M. Horner
10	H.G. Chandler
11	William L. Horner, et al
16	Robert F. Martin, et al
17	Robert F. Martin, et al
21	Nathan McWhorter, et al
22	Nathan G. & Dora E. McWhorter
23	J.W. Jackson
24	William C. White
25	Nathan McWhorter, et al
26	Hunter Cooper, et al
27	Nelia J. Fitzpatrick, et al
31	J.A. Shock
32	James W. Rogers, et al
33	Hugh Davis
35	Willard J. Prince, et al
36	Garnett M. Corley
38	Hugh Davis
39	Virginia A. Nepps
40	Myrtle Emonds, et al
41	Myrtle Emonds, et al
43	Margaret Howell, et vir
44	J.W.C. Kolb, et ux
45	A.L. Waggoner, et al
50	Dale McWhorter, et al

Detail 2 (Scale 1"=500')



FILE NO: 296-36-G-18
DRAWING NO: 1207 S-9H 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: September 30 2019
OPERATOR'S WELL NO. 1207 S-9H
API WELL NO
47 - 033 - 05974
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek
DISTRICT: Grant

Top: West Milford
QUADRANGLE: Btm: Weston
COUNTY: Harrison
ACREAGE: 89.07

SURFACE OWNER: HG Energy II Appalachia, LLC
ROYALTY OWNER: Dora B. McWhorter, et al

LEASE NO: _____ ACREAGE: 103.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,582' MD

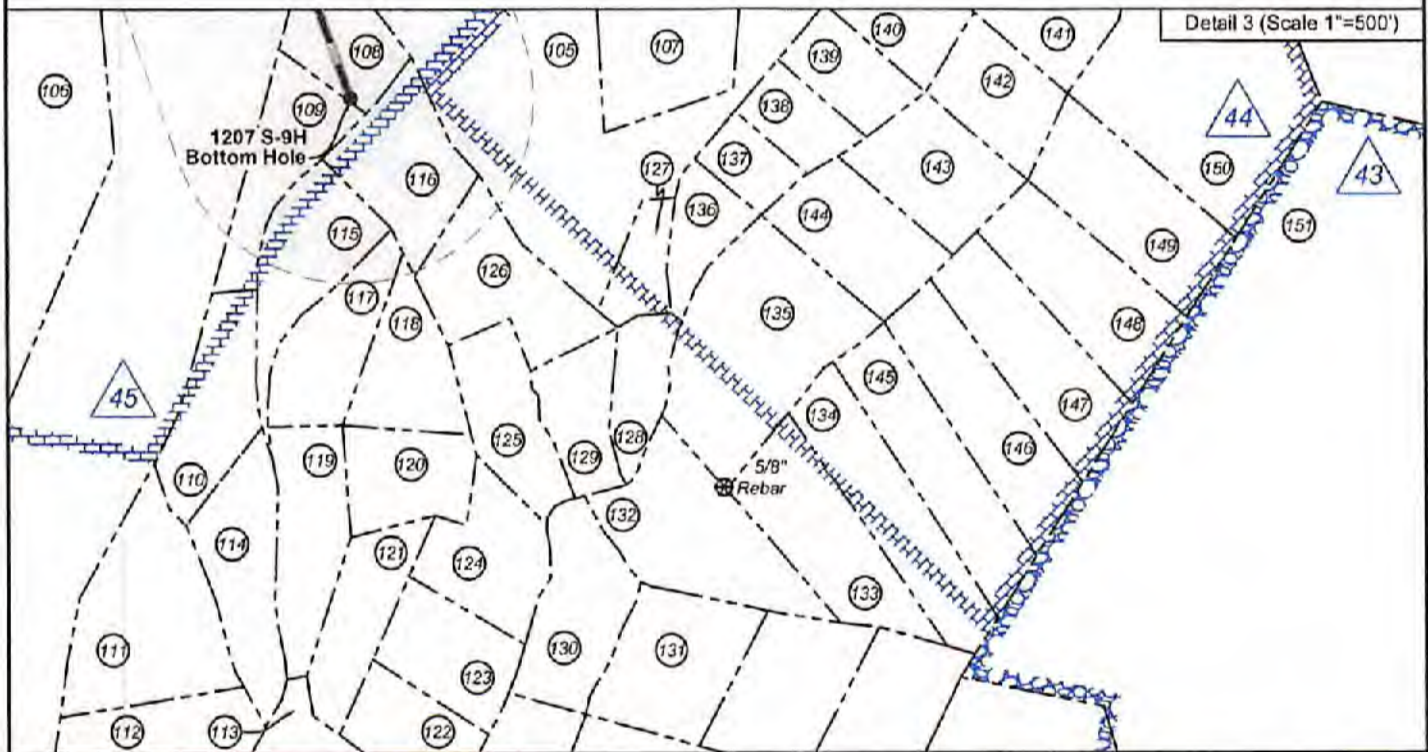
WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101



Harrison Co. - Grant Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	445 / 5	HG Energy II Appalachia, LLC	--- / ---	89.07
2	445 / 3	Lisa M. Nutter	W188 / 687	64.00
3	445 / 12	Lisa M. Nutter	W188 / 687	64.50
4	445 / 13	Mickey Petillo	W175 / 1167	132.85
5	445 / 13.1	Martha E. Lambert	--- / ---	26.77
6	445 / 14	Martha E. Lambert	1276 / 582	2.61
7	445 / 15.1	Martha E. Lambert	1276 / 582	35.00
8	445 / 15	Margaret S. Fisher	1276 / 578	49.69
9	445 / 26	Margaret S. Fisher	1200 / 626	28.75
10	445 / 26	Leland Freeman	W188 / 329	15.25
11	445 / 25	Leland Jackson Freeman	W167 / 371	21.00
12	445 / 35.1	Robert Freeman	1510 / 178	1.85
13	445 / 35	Robert Freeman	1265 / 521	3.82
14	445 / 36	Leland Jackson Freeman	W167 / 371	1.34
15	445 / 37	Leland Jackson Freeman	W167 / 371	1.34
16	445 / 38	Leland Jackson Freeman	W167 / 371	1.34
17	445 / 39	Leland Jackson Freeman	W167 / 371	1.34
18	445 / 40	Leland Jackson Freeman	W167 / 371	8.20
19	445 / 41	Charles Sutton	--- / ---	7.40
20	445 / 42	Ivy Myrtle Freeman	W56 / 47	4.80
21	445 / 42.1	Charles R. Sutton	--- / ---	3.00
22	445 / 43	Charles R. & Franklin L. Sutton	1623 / 1057	4.65

Harrison Co. - Grant Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
23	445 / 47	Charles R. & Franklin L. Sutton	1623 / 1057	78.00
24	445 / 46	James W. Riffle II, et al	1385 / 259	140.43
25	445 / 15	Margaret S. Fisher	1276 / 576	49.69
26	446 / 30	Charles R. Sutton	1535 / 207	29.00
27	446 / 31	Richard L. Hawkins, Jr.	1569 / 982	58.96
28	465 / 10	Catherine D. Weber	1495 / 458	81.50
29	465 / 4.1	J. Gregory & Rebecca Moore	1421 / 350	353.80
30	465 / 1	Catherine D. Weber	1495 / 458	103.72
31	466 / 5	Mary Reel	1244 / 948	75.46
32	466 / 4	Mary Reel	1244 / 948	10.90
33	466 / 2	Worthey E. & Connie S. Poe	1240 / 388	16.70
34	466 / 1	Worthey E. & Connie S. Poe	1240 / 388	25.16
35	468 / 20	Worthey E. & Connie S. Poe	1240 / 388	49.24
36	466 / 39.1	Worthey E. & Connie S. Poe	1240 / 388	28.88
37	468 / 57.1	Martha L. Davis	W168 / 435	1.91
38	466 / 57.2	Vicki & Michael Davis	1198 / 1125	4.16
39	466 / 57.2	Vicki & Michael Davis	1198 / 1125	4.16
40	466 / 41	Dominion Transmission	A158 / 362	0.77
41	468 / 59	David & Ladonna Manley	1380 / 151	1.68
42	468 / 40	Frank N. Wine, Jr. & III	1596 / 809	42.04
43	465 / --	Unknown Parcel	--- / ---	16.52



FILE NO: 296-36-G-18
DRAWING NO: 1207 S-9H 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

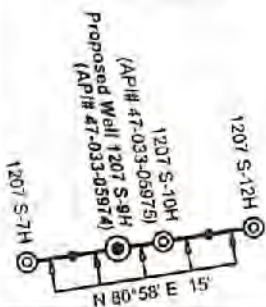
DATE: September 30 20 19
OPERATOR'S WELL NO. 1207 S-9H
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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek
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SURFACE OWNER: HG Energy II Appalachia, LLC
ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 103.00
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD 7,145' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,592' MD

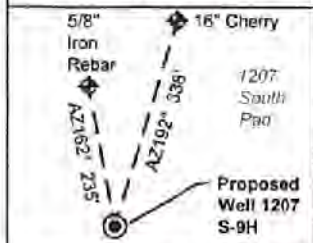
WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5280 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101



Wellhead Layout (NTS)



Well Location References
Not to Scale



No.	TM / Par	Owner	Bk / Pg	Ac.
44	9C / 49	Timothy Dean Skinner	W4 / 706	1.35
45	9C / 50	Sharon Lee Allman	W47 / 298	0.73
46	9C / 46	Josephine M. Richardson	681 / 790	0.80
47	9C / 47	Josephine M. Richardson	681 / 790	2.36
48	9C / 45	Josephine M. Richardson	681 / 790	0.40
49	9C / 5.2	James R. & Sharon L. Allman	357 / 369	0.27
50	9C / 5.11	James R. & Sharon L. Allman	582 / 386	0.54
51	9C / 5	Steven Davis, et ux	665 / 329	20.47
52	9C / 6.11	Steve Davis & Darlene Davis	623 / 356	0.50
53	9C / 31	Steven M. Davis, et ux	713 / 12	1.62
54	9C / 5.3	Ryan K. Dumont, et ux	701 / 418	1.24
55	9C / 6.15	James R. Allman, et ux	662 / 432	1.51
56	9C / 6.16	Terrie & Mark Gregory	663 / 744	0.06
57	9C / 5.12	Mark A. Gregory, et ux	597 / 290	0.18
58	9C / 5.10	Angela M. Batten, et al	726 / 545	0.49
59	9C / 5.7	Mark A. Gregory, et ux	597 / 290	0.37
60	9C / 4	Joseph C. Rumbach, et ux	440 / 196	1.00
61	9C / 5.9	Christopher James Allman, et ux	513 / 527	0.41
62	9C / 3.2	David M. Hughes	506 / 714	0.85
63	9C / --	Monongahala Valley Traction Co.	76 / 424	0.06
64	9C / 3	Mary J. Radcliff, et al	W48 / 491	0.55
65	9C / 3.1	Nolan D. Gunter, Jr., et ux	594 / 145	0.50
66	9C / 6	Steven Davis, et ux	665 / 329	16.99
67	9C / 6.12	Amy N. Davis & Ryan K. Dumont	640 / 349	2.50
68	9C / 6.13	April D. & Brannon L. Jordan	641 / 42	1.05
69	9C / 6.3	Steve & Darlene Davis	665 / 329	0.38
70	9C / 6.14	April D. & Brannon L. Jordan	641 / 42	2.34
71	9C / 6.10	Elizabeth Post	594 / 764	0.74
72	9C / 6.17	Elizabeth Post	664 / 702	0.26
73	9C / 2	Nolan D. Gunter, Jr., et ux	594 / 145	0.25
74	9C / 1	Nolan D. Gunter, Jr., et ux	594 / 145	0.90
75	6 / 3	Catherine Weber	663 / 603	0.44
76	6 / 2.2	Willard J. Prince	---	0.24
77	6 / 2	Willard J. Prince	W22 / 109	1.22
78	6 / 1	Willard J. Prince	W22 / 109	4.75
79	6 / 2.1	JSB Land Holding	684 / 432	0.97
80	6 / 13	Jackie Lee Frazier	244 / 399	0.16
81	6 / 14	Daniel R. Rochelle L. Hinkle	732 / 6	0.18
82	6 / 15	Daniel R. Rochelle L. Hinkle	732 / 6	0.18
83	6 / 16	Floyd S. Woodyard	W6 / 138	4.00
84	6 / 31	Steven L. & Anna M. Butcher	543 / 765	3.34
85	6 / 32	Ronzel C. & Sandra K. Richards	317 / 331	4.00
86	9C / 5.6	Meranda K. Langbein	651 / 728	0.38
87	9C / 6.1	Robert Lee Smith, et ux	520 / 670	0.35
88	9C / 6.5	Robert Lee Smith, et ux	535 / 42	0.04
89	9C / 6.4	Kelly C. Montgomery	721 / 40	0.39
90	9C / 6.6	Charles W. Davis, et ux	611 / 655	0.35
91	9C / 6.8	Jerry D. Muncy, et ux	569 / 687	0.35
92	9C / 6.9	Jerry D. Muncy, et ux	569 / 687	0.40
93	9C / 6.7	Richard E. Ratliff, et ux	567 / 47	0.44
94	9C / 5.14	John M. Krupia, et ux	599 / 37	0.39
95	9C / 5.13	John M. Krupia, et ux	599 / 37	0.37
96	9C / 5.8	Charles E. Miller, et ux	663 / 185	0.18
97	9C / 5.5	T&G Rentals, LLC	667 / 767	0.24

No.	TM / Par	Owner	Bk / Pg	Ac.
98	9C / 7.1	Shaylee Suzanna Allman	670 / 621	0.77
99	9C / 7.2	Marcus Shane Gregory	673 / 609	0.80
100	9C / 7.3	Tyke Bryant Foster II	715 / 270	1.04
101	9C / 5.4	Jeffrey Russell Allman	162 / 588	0.38
102	9C / 5.1	Dominion Energy Transmission	---	0.70
103	9C / 7	Sharon Lee Allman	W47 / 298	74.55
104	9C / 30	Mike Ross Inc.	550 / 561	38.77
105	9C / 16.3	Mike Ross Inc.	712 / 409	42.71
106	9C / 8	Rose Ann & Hunter Kolb	W6 / 670	88.16
107	9C / 16.49	Rick & Carol Nolan	665 / 650	5.00
108	9C / 16.35	Tamera & Jonathan Riggs	724 / 203	2.07
109	9C / 16.36	Tamera & Jonathan Riggs	724 / 203	2.26
110	9C / 16.32	Roy & Rhoda Martin	638 / 722	2.51
111	9C / 16.16	Roy & Rhoda Martin	612 / 82	2.26
112	9C / 16.10	SWN Production Company, LLC	684 / 397	18.16
113	9C / 16.48	Roy & Rhoda Martin	682 / 618	4.29
114	9C / 16.28	Roy & Rhoda Martin	626 / 433	2.71
115	9C / 16.45	Jeffrey & Angela Ross	662 / 418	2.46
116	9C / 16.41	Tamera & Jonathan Riggs	724 / 199	2.62
117	9C / 16.34	Michael Stowers	669 / 418	2.26
118	9C / 16.33	Michael Stowers	669 / 418	2.07
119	9C / 16.13	Joni Nelson Howard	612 / 85	2.52
120	9C / 16.14	Joni Nelson Howard	669 / 642	2.03
121	9C / 16.29	Joni Nelson Howard	627 / 399	1.87
122	9C / 16.46	Roy & Rhoda Martin	662 / 618	2.03
123	9C / 16.47	Roy & Rhoda Martin	662 / 618	2.17
124	9C / 16.53	Joni Nelson Howard	674 / 69	2.38
125	9C / 16.6	Ross A. Lodge	717 / 846	1.73
126	9C / 52	Jeffrey & Ricki Leary	673 / 758	2.95
127	9C / 16.44	Jeremy & Autumn Vance	658 / 345	1.02
128	9C / 16.19	Robert P. Lindsey J. Shepherd	717 / 515	1.31
129	9C / 51	Jeffrey & Ricki Leary	673 / 744	1.64
130	9C / 16.21	David & Treina Bonnett	620 / 345	2.70
131	9C / 16.1	Mahadeo Ramkissoon	600 / 305	3.00
132	9C / 16.23	Brian W. Smith	712 / 459	1.60
133	9C / 16.43	Jason Eager	658 / 291	3.18
134	9C / 16.7	Sarah Nealis	684 / 321	6.37
135	9C / 16.11	Brian & Deborah Shillingburg	726 / 816	5.25
136	9C / 16.8	Virginia Barmette	608 / 505	1.25
137	9C / 18.2	Cody Kemper	738 / 800	0.96
138	9C / 16.31	Ross & Brenda Helmick	678 / 427	1.22
139	9C / 16.57	Samuel McDaniel, Jr.	713 / 53	1.53
140	9C / 16.18	Timothy Rice	702 / 475	2.00
141	9C / 16.5	Robert S. Hinderliter	608 / 6	4.30
142	9C / 16.17	Roberta G. Fisher	639 / 511	2.00
143	9C / 16.30	John T. Vincent	847 / 344	2.56
144	9C / 50	Trevis W. Taylor, et al	670 / 245	2.56
145	9C / 16.7	Sarah Nealis	684 / 321	6.37
146	9C / 18.27	Sarah Nealis	691 / 557	3.19
147	9C / 16.25	Paul A. & Karen B. Guillette	617 / 389	3.19
148	9C / 16.26	Paul A. & Karen B. Guillette	617 / 389	3.19
149	9C / 16.24	Paul A. & Karen B. Guillette	617 / 389	3.35
150	9C / 16.4	William A. & Amy D. Burchett	607 / 202	9.66
151	9C / 27	S. Thomas & Esther M. Bond	577 / 328	225.25

FILE NO: 296-36-G-18
DRAWING NO: 1207 S-9H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV



DATE: September 30 2019
OPERATOR'S WELL NO. 1207 S-9H
API WELL NO
47 - 033 - 05974
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek
DISTRICT: Grant QUADRANGLE: Top: West Millford Btm: Weston
SURFACE OWNER: HG Energy II Appalachia, LLC COUNTY: Harrison
ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 89.07
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD ESTIMATED DEPTH: 7,145' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,582' 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

HG Energy II Appalachia, LLC
Well No. 1207 S-9H MOD

Page 1 of 4

Notes:
Well No. 1207 S-9H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,218,312.78'
E: 1,809,818.86'
Landing Point Coordinates
N: 14,217,750.53'
E: 1,809,210.54'
Bottom Hole Coordinates
N: 14,204,702.72'
E: 1,814,011.80'

Legend

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

Notes: Well No. 1207 S-9H
West Virginia Coordinate System of 1927, North Zone
based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°09'04.79" Latitude: 39°06'49.95"
Longitude: 80°24'09.44" Longitude: 80°23'17.37"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,333,750.403m N: 4,329,602.048m
E: 551,833.892m E: 552,911.902m
Plat orientation and corner and well references are
based upon the grid north meridian. Well location
references are based upon the magnetic meridian.



Tag	Bearing	Dist.
L1	S 02°20' E	1,495.9'
L2	S 16°59' W	1,590.1'
L3	S 75°04' W	2,158.2'
L4	N 73°58' W	989.6'
L5	S 47°15' W	828.4'

7,831' to Top Hole

3,732' to Bottom Hole

TOP LATITUDE 39 - 10 - 00
BTM LATITUDE 39 - 07 - 30



LONGITUDE 80 - 22 - 30
4,052' to Bottom Hole
5,584' to Top Hole

Bottom Hole
7.5' Spot



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, P.S. 2070

FILE NO: 296-36-G-18
DRAWING NO: 1207 S-9H 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

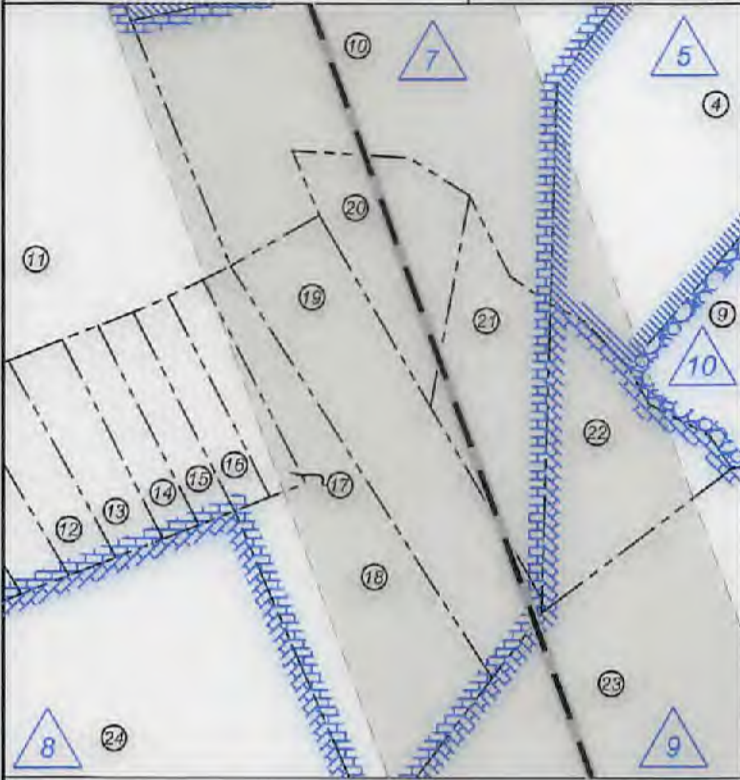
DATE: September 30 2019
OPERATOR'S WELL NO. 1207 S-9H
API WELL NO
47 - 033 - 05974
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek
DISTRICT: Grant QUADRANGLE: Top: West Milford Btm: Weston
SURFACE OWNER: HG Energy II Appalachia, LLC COUNTY: Harrison
ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 89.07
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD 7,145' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,582' 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



Detail 1 (Scale 1"=500')



ID	Lease
2	A.J. Smith, et ux
3	Dora B. McWhorter, et al
5	Union National Bank Trustee of Gore Morris
6	Martha E. Lambert
7	John T. Freeman
8	Walter Neely, et al
9	William H. & Fannie M. Horner
10	H.G. Chandler
11	William L. Horner, et al
16	Robert F. Martin, et al
17	Robert F. Martin, et al
21	Nathan McWhorter, et al
22	Nathan G. & Dora E. McWhorter
23	J.W. Jackson
24	William C. White
25	Nathan McWhorter, et al
26	Hunter Cooper, et al
27	Nelia J. Fitzpatrick, et al
31	J.A. Shock
32	James W. Rogers, et al
33	Hugh Davis
35	Willard J. Prince, et al
36	Garnett M. Corley
38	Hugh Davis
39	Virginia A. Nepps
40	Myrtle Emonds, et al
41	Myrtle Emonds, et al
43	Margaret Howell, et vir
44	J.W.C. Kolb, et ux
45	A.L. Waggoner, et al
50	Dale McWhorter, et al

Detail 2 (Scale 1"=500')



FILE NO: 296-36-G-18
DRAWING NO: 1207 S-9H 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: September 30 2019
OPERATOR'S WELL NO. 1207 S-9H
API WELL NO
47 - 033 - 05974
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek
DISTRICT: Grant

Top: West Milford
QUADRANGLE: Btm: Weston
COUNTY: Harrison
ACREAGE: 89.07

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Dora B. McWhorter, et al

LEASE NO: _____ ACREAGE: 103.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,145' TVD 21,582' MD

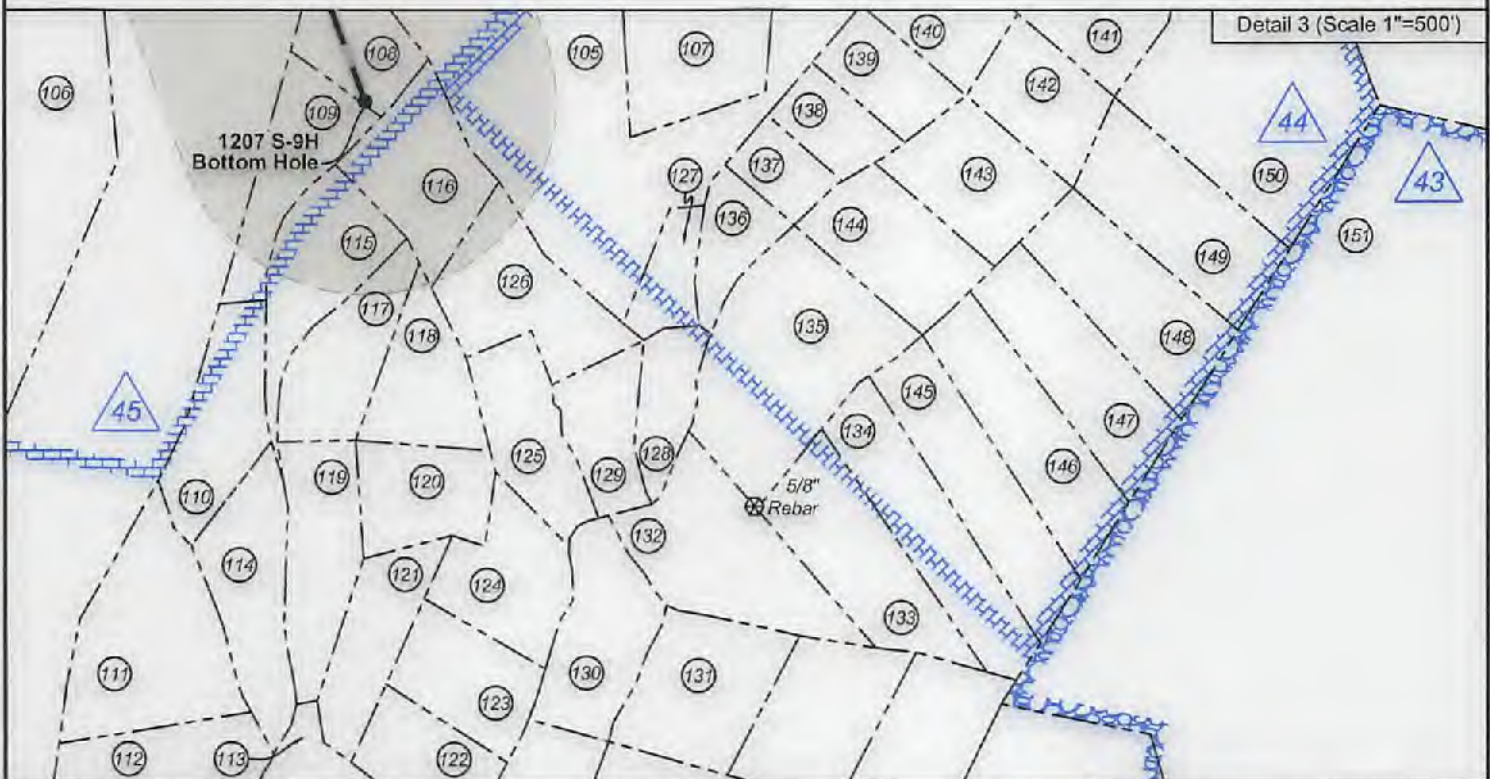
WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101


DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101



Harrison Co. - Grant Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
1	445 / 5	HG Energy II Appalachia, LLC	--- / ---	89.07
2	445 / 3	Lisa M. Nutter	W188 / 687	64.00
3	445 / 12	Lisa M. Nutter	W188 / 687	64.50
4	445 / 13	Mickey Petitto	W175 / 1167	132.85
5	445 / 13.1	Martha E. Lambert	--- / ---	26.77
6	445 / 14	Martha E. Lambert	1276 / 582	2.61
7	445 / 15.1	Martha E. Lambert	1276 / 582	35.00
8	445 / 15	Margaret S. Fisher	1276 / 576	49.69
9	445 / 28	Margaret S. Fisher	1200 / 626	28.75
10	445 / 25	Leland Freeman	W188 / 329	15.25
11	445 / 25	Leland Jackson Freeman	W167 / 371	21.00
12	445 / 35.1	Robert Freeman	1510 / 178	1.85
13	445 / 35	Robert Freeman	1286 / 521	3.82
14	445 / 35	Leland Jackson Freeman	W167 / 371	1.34
15	445 / 37	Leland Jackson Freeman	W167 / 371	1.34
16	445 / 38	Leland Jackson Freeman	W167 / 371	1.34
17	445 / 39	Leland Jackson Freeman	W167 / 371	1.34
18	445 / 40	Leland Jackson Freeman	W167 / 371	8.20
19	445 / 41	Charles Sutton	--- / ---	7.40
20	445 / 42	Ivy Myrtle Freeman	W56 / 47	4.80
21	445 / 42.1	Charles R. Sutton	--- / ---	3.00
22	445 / 43	Charles R. & Franklin L. Sutton	1623 / 1057	4.65

Harrison Co. - Grant Dist.				
No.	TM / Par	Owner	Bk / Pg	Ac.
23	445 / 47	Charles R. & Franklin L. Sutton	1623 / 1057	78.00
24	445 / 46	James W. Riffle II, et al	1385 / 259	140.43
25	445 / 15	Margaret S. Fisher	1276 / 576	49.69
28	446 / 30	Charles R. Sutton	1535 / 207	29.00
27	446 / 31	Richard L. Hawkins, Jr.	1569 / 982	58.96
28	465 / 10	Catherine D. Weber	1495 / 458	81.50
29	465 / 4.1	J. Gregory & Rebecca Moore	1421 / 350	353.80
30	465 / 1	Catherine D. Weber	1495 / 458	103.72
31	466 / 5	Mary Reel	1244 / 948	75.43
32	466 / 4	Mary Reel	1244 / 948	10.90
33	466 / 2	Worthey E. & Connie S. Poe	1240 / 388	16.70
34	466 / 1	Worthey E. & Connie S. Poe	1240 / 388	25.16
35	466 / 20	Worthey E. & Connie S. Poe	1240 / 388	48.24
36	466 / 39.1	Worthey E. & Connie S. Poe	1240 / 388	28.88
37	466 / 57.1	Martha L. Davis	W168 / 435	1.91
38	466 / 57.2	Vicki & Michael Davis	1198 / 1125	4.16
39	466 / 57.2	Vicki & Michael Davis	1198 / 1125	4.16
40	466 / 41	Dominion Transmission	A158 / 362	0.77
41	466 / 59	David & Ladonna Manley	1380 / 151	1.68
42	466 / 40	Frank N. Wine, Jr. & III	1596 / 809	42.04
43	465 / --	Unknown Parcel	--- / ---	16.52



FILE NO: 296-36-G-18	 STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION	DATE: September 30 2019
DRAWING NO: 1207 S-9H Well Plat		OPERATOR'S WELL NO. 1207 S-9H
SCALE: 1" = 2000'		API WELL NO
MINIMUM DEGREE OF ACCURACY: Submeter		47 — 033 — 05974
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV		STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek QUADRANGLE: Top: West Milford Btm: Weston
 DISTRICT: Grant COUNTY: Harrison
 SURFACE OWNER: HG Energy II Appalachia, LLC ACREAGE: 89.07
 ROYALTY OWNER: Dora B. McWhorter, et al LEASE NO: ACREAGE: 103.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD 7,145' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 21,582' MD

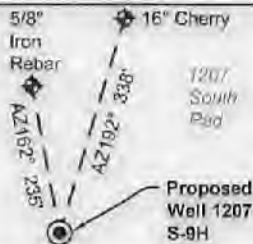
WELL OPERATOR: HG Energy II Appalachia, LLC	DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road Parkersburg, WV 26101	ADDRESS: 5260 Dupont Road Parkersburg, WV 26101



Wellhead Layout (NTS)



Well Location References
Not to Scale



Lewis Co. - Hackers Creek Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
44	9C / 49	Timothy Dean Skinner	W4 / 708	1.35
45	9C / 60	Sharon Lee Allman	W47 / 298	0.73
46	9C / 46	Josephine M. Richardson	681 / 790	0.80
47	9C / 47	Josephine M. Richardson	681 / 790	2.36
48	9C / 45	Josephine M. Richardson	681 / 790	0.40
49	9C / 5.2	James R. & Sharon L. Allman	357 / 369	0.27
50	9C / 5.11	James R. & Sharon L. Allman	582 / 386	0.54
51	9C / 5	Steven Davis, et ux	665 / 329	20.47
52	9C / 6.11	Steve Davis & Darlene Davis	623 / 356	0.50
53	9C / 31	Steven M. Davis, et ux	713 / 12	1.82
54	9C / 5.3	Ryan K. Dumont, et ux	701 / 418	1.24
55	9C / 6.15	James R. Allman, et ux	662 / 432	1.51
56	9C / 6.16	Terre & Mark Gregory	663 / 744	0.06
57	9C / 5.12	Mark A. Gregory, et ux	597 / 290	0.18
58	9C / 5.10	Angela M. Batten, et al	726 / 545	0.40
59	9C / 5.7	Mark A. Gregory, et ux	597 / 290	0.37
60	9C / 4	Joseph C. Rumbach, et ux	440 / 196	1.00
61	9C / 5.9	Christopher James Allman, et ux	613 / 527	0.41
62	9C / 3.2	David M. Hughes	606 / 714	0.85
63	9C / --	Monongahela Valley Traction Co.	76 / 424	0.06
64	9C / 3	Mary J. Radcliff, et al	W46 / 491	0.55
65	9C / 3.1	Nolan D. Gunter, Jr., et ux	594 / 145	0.50
66	9C / 6	Steven Davis, et ux	665 / 329	15.99
67	9C / 6.12	Amy N. Davis & Ryan K. Dumont	640 / 349	2.50
68	9C / 6.13	April D. & Brannon L. Jordan	841 / 42	1.05
69	9C / 6.3	Steve & Darlene Davis	665 / 329	0.38
70	9C / 6.14	April D. & Brannon L. Jordan	841 / 42	2.34
71	9C / 6.10	Elizabeth Post	594 / 764	0.74
72	9C / 6.17	Elizabeth Post	664 / 702	0.26
73	9C / 2	Nolan D. Gunter, Jr., et ux	594 / 145	0.25
74	9C / 1	Nolan D. Gunter, Jr., et ux	594 / 145	0.80
75	6 / 3	Catherine Weber	663 / 603	0.44
76	6 / 2.2	Willard J. Prince	--- / ---	0.24
77	6 / 2	Willard J. Prince	W22 / 109	1.22
78	6 / 1	Willard J. Prince	W22 / 109	4.75
79	6 / 2.1	JSB Land Holding	684 / 432	0.97
80	6 / 13	Jackie Lee Frazier	244 / 399	0.16
81	6 / 14	Daniel R. Rochelle L. Hinkle	732 / 6	0.18
82	5 / 15	Daniel R. Rochelle L. Hinkle	732 / 6	0.18
83	6 / 16	Floyd S. Woodyard	W8 / 138	4.00
84	6 / 31	Steven L. & Annsa M. Butcher	543 / 765	3.34
85	6 / 32	Ronzel C. & Sandra K. Richards	317 / 331	4.00
86	9C / 5.6	Meranda K. Langbein	651 / 728	0.38
87	9C / 6.1	Robert Lee Smith, et ux	520 / 670	0.35
88	9C / 6.5	Robert Lee Smith, et ux	536 / 42	0.04
89	9C / 6.4	Kelly C. Montgomery	721 / 40	0.39
90	9C / 6.8	Charles W. Davis, et ux	811 / 655	0.35
91	9C / 6.8	Jerry D. Muncy, et ux	589 / 687	0.35
92	9C / 6.9	Jerry D. Muncy, et ux	589 / 687	0.40
93	9C / 6.7	Richard E. Ratliff, et ux	567 / 47	0.44
94	9C / 5.14	John M. Krupia, et ux	599 / 37	0.39
95	9C / 5.13	John M. Krupia, et ux	599 / 37	0.37
96	9C / 5.8	Charles E. Miller, et ux	863 / 185	0.18
97	9C / 5.5	T&G Rentals, LLC	867 / 767	0.24

Lewis Co. - Hackers Creek Dist.

No.	TM / Par	Owner	Bk / Pg	Ac.
98	9C / 7.1	Shaylee Suzanna Allman	670 / 621	0.77
99	9C / 7.2	Marcus Shane Gregory	673 / 609	0.80
100	9C / 7.3	Tyke Bryant Foster II	715 / 270	1.04
101	9C / 6.4	Jeffrey Russell Allman	182 / 588	0.38
102	9C / 5.1	Dominion Energy Transmission	--- / ---	0.70
103	9C / 7	Sharon Lee Allman	W47 / 298	74.65
104	9C / 30	Mike Ross Inc.	550 / 561	38.77
105	9C / 16.3	Mike Ross Inc.	712 / 409	42.71
106	9C / 8	Rose Ann & Hunter Kolb	W6 / 670	88.16
107	9C / 16.49	Rick & Carol Nolan	669 / 650	5.00
108	9C / 16.35	Tamera & Jonathan Riggs	724 / 203	2.07
109	9C / 16.36	Tamera & Jonathan Riggs	724 / 203	2.26
110	9C / 16.32	Roy & Rhoda Martin	638 / 722	2.51
111	9C / 16.16	Roy & Rhoda Martin	612 / 82	2.26
112	9C / 16.10	SWN Production Company, LLC	684 / 397	18.16
113	9C / 16.48	Roy & Rhoda Martin	662 / 618	4.29
114	9C / 16.28	Roy & Rhoda Martin	626 / 433	2.71
115	9C / 16.45	Jeffrey & Angela Ross	662 / 418	2.46
116	9C / 16.41	Tamera & Jonathan Riggs	724 / 199	2.62
117	9C / 16.34	Michael Stowers	669 / 418	2.26
118	9C / 16.33	Michael Stowers	669 / 418	2.07
119	9C / 16.13	Joni Nelson Howard	612 / 85	2.52
120	9C / 16.14	Joni Nelson Howard	669 / 642	2.03
121	9C / 16.29	Joni Nelson Howard	627 / 389	1.87
122	9C / 16.48	Roy & Rhoda Martin	662 / 618	2.03
123	9C / 16.47	Roy & Rhoda Martin	662 / 618	2.17
124	9C / 16.53	Joni Nelson Howard	674 / 69	2.36
125	9C / 16.6	Ross A. Lodge	717 / 848	1.73
126	9C / 52	Jeffrey & Ricki Leary	673 / 758	2.95
127	9C / 16.44	Jeremy & Autumn Vance	669 / 345	1.02
128	9C / 16.19	Robert P. Lindsey J. Shepherd	717 / 615	1.31
129	9C / 51	Jeffrey & Ricki Leary	673 / 744	1.64
130	9C / 16.21	David & Trina Bonnett	620 / 345	2.70
131	9C / 16.1	Mahadeo Ramkisson	800 / 305	3.00
132	9C / 16.23	Brian W. Smith	712 / 459	1.60
133	9C / 16.43	Jason Eager	658 / 291	3.18
134	9C / 16.7	Sarah Nealis	684 / 321	6.37
135	9C / 16.11	Brian & Deborah Shillingburg	726 / 816	5.25
136	9C / 16.8	Virginia Barnette	608 / 505	1.25
137	9C / 16.2	Cody Kemper	736 / 800	0.96
138	9C / 16.31	Ross & Brenda Heimick	678 / 427	1.22
139	9C / 16.57	Samuel McDaniel, Jr.	713 / 53	1.53
140	9C / 16.18	Timothy Rice	702 / 475	2.00
141	9C / 16.5	Robert S. Hinderliter	608 / 6	4.30
142	9C / 16.17	Roberta G. Fisher	639 / 511	2.00
143	9C / 16.30	John T. Vincent	647 / 344	2.56
144	9C / 50	Travis W. Taylor, et al	670 / 245	2.56
145	9C / 16.7	Sarah Nealis	684 / 321	6.37
146	9C / 16.27	Sarah Nealis	691 / 557	3.19
147	9C / 16.25	Paul A. & Karen B. Guillette	617 / 389	3.19
148	9C / 16.26	Paul A. & Karen B. Guillette	617 / 389	3.19
149	9C / 16.24	Paul A. & Karen B. Guillette	617 / 389	3.35
150	9C / 16.4	William A. & Amy D. Burchett	807 / 202	9.86
151	9C / 27	S. Thomas & Esther M. Bond	577 / 328	225.25

FILE NO: 296-36-G-18

DRAWING NO: 1207 S-9H 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: September 30 2019

OPERATOR'S WELL NO. 1207 S-9H

API WELL NO

47 - 033 - 05974
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,344' WATERSHED: Middle West Fork Creek

DISTRICT: Grant

SURFACE OWNER: HG Energy II Appalachia, LLC

ROYALTY OWNER: Dora B. McWhorter, et al

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) LP & BH MOD

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,145' TVD 21,582' MD

WELL OPERATOR: HG Energy II Appalachia, LLC

ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White

ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

Top: West Milford
Btm: Weston
COUNTY: Harrison
ACREAGE: 89.07

LEASE NO: ACREAGE: 103.00



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

September 9, 2019

Laura Adkins
WV DEP
Division of Oil & Gas
601 57th Street
Charleston, WV 25304

RE: Drilling Under Roads – Neel 1207 S-9H
Union District, Harrison County
West Virginia

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Office of Oil and Gas
SEP 24 2019
WV Department of
Environmental Protection

Dear Ms. Adkins:

HG Energy II Appalachia, LLC, has the right to drill, stimulate and produce wells that are drilled under the County and State Roads as designated on the plats.

Should you have any questions or desire further information, please contact me at dwhite@hgenergyllc.com or 304-420-1119.

Very truly yours,

Diane White

Diane C. White

Enclosures

4703305974

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

Date of Notice Certification: 09/11/2019

API No. 47- _____
Operator's Well No. Neel 1207 S-9H
Well Pad Name: Neel 1207

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>551633.9</u>
County:	<u>Harrison</u>		Northing:	<u>4333750.4</u>
District:	<u>Union</u>	Public Road Access:	<u>SR19/Hidden Valley Road</u>	
Quadrangle:	<u>West Milford</u>	Generally used farm name:	<u>Hubert E & Sandra K Neel</u>	
Watershed:	<u>Middle West Fork Creek</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following: *PLEASE CHECK ALL THAT APPLY <input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED <input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED <input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or <input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH) <input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION <input checked="" type="checkbox"/> 5. PUBLIC NOTICE <input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION		OOG OFFICE USE ONLY <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED/ NOT REQUIRED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED <input type="checkbox"/> RECEIVED
RECEIVED Office of Oil and Gas SEP 24 2019 WV Department of Environmental Protection		

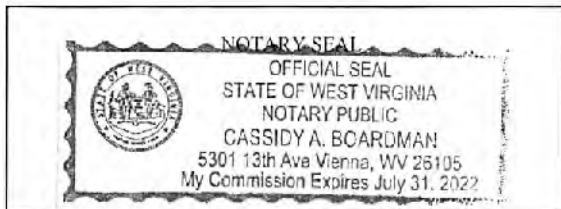
Required Attachments:

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

Certification of Notice is hereby given:

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

Well Operator:	<u>HG Energy II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
By:	<u>Diane White <i>Diane White</i></u>		<u>Parkersburg, WV 26101</u>
Its:	<u>Accountant</u>	Facsimile:	<u>304-863-3172</u>
Telephone:	<u>304-420-1119</u>	Email:	<u>dwhite@hgenergyllc.com</u>



Subscribed and sworn before me this 11th day of September, 2019.

Cassidy Boardman Notary Public

My Commission Expires 7/31/2022

Oil and Gas Privacy Notice:

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

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WW-6A
(9-13)

API NO. 47- 47.03505974
OPERATOR WELL NO. Neel 1207 S-9H
Well Pad Name: Neel 1207

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 09/07/2019 **Date Permit Application Filed:** 09/11/2019

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)
Name: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101

Name: _____
Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Lisa M. Nutter
Address: 132 Praise Lane
Jane Lew, WV 26375

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101

COAL OWNER OR LESSEE
Name: NA
Address: _____

COAL OPERATOR
Name: NA
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: NA
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: Dominion Energy Transmission - Attn: Ronald Waldren
Address: 925 White Oaks Blvd
Bridgeport, WV 26330

*Please attach additional forms if necessary

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(8-13)

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API NO. 47-~~003-05074~~
OPERATOR WELL NO. Neel 1207 S-9H
Well Pad Name: Neel 1207

WV Department of
Environmental Protection

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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WV Department of
Environmental Protection

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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SEP 24 2019

WV Department of
Environment & Natural Resources

WW-6A
(8-13)

API NO. 47-703305074
OPERATOR WELL NO. Neel 1207 S-9H
Well Pad Name: Neel 1207

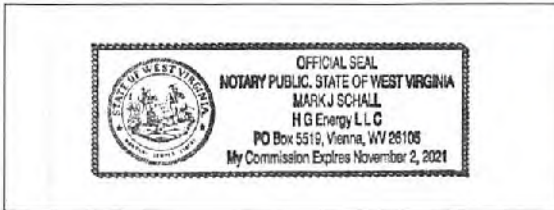
Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com *Diane White*

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-3172

Oil and Gas Privacy Notice:

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



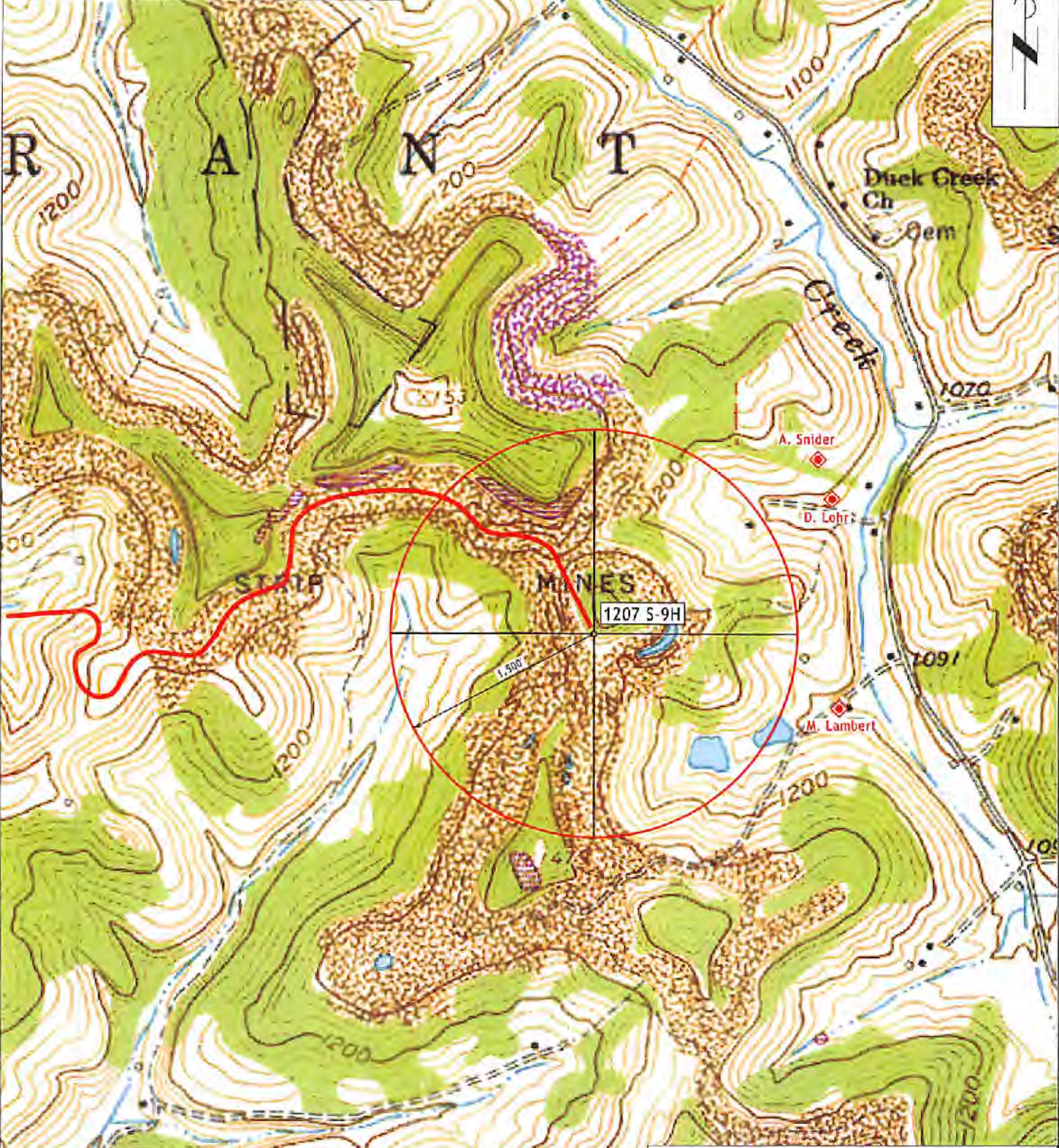
Subscribed and sworn before me this 5th day of September, 2019.

Mark J. Schall Notary Public

My Commission Expires 11/2/2021

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Environmental Protection

SUBJECT WELL
NEEL 1207 UNIT S-9H



◆ Denotes Possible Water Supply Source to be Tested

Section of
West Milford 7.5' Quadrangle
SCALE 1"=1000'

Diane White

From: Diane White
Sent: Wednesday, December 19, 2018 5:07 PM
To: Vickie Hoops (vhoops@sturmenvvironmental.com)
Subject: 1207 Well Pad WSW Owners to be Tested
Attachments: NEEL 1207 TOPO AND REC PLAN.pdf

Vicki,

Good afternoon. Listed below are three people who we believe have water at about 2000' from the Neel 1207 well pad. Could you please have their water sampled and a pre-drill analysis run? Please have the paperwork identified as the Neel 1207 Well Pad.

This is in Harrison county, Grant district, the West Milford quadrangle. I've attached a topo and rec plan which should help identify the area. If you need more information please let me know.

Thanks,
Diane

From: Timothy Roush
Sent: Wednesday, December 19, 2018 11:53 AM
To: Diane White <dwhite@hgenergyllc.com>
Subject: 1207 WSW Owners

The WSW Owners for 1207 are:

SNIDER, ANTHONY D
29 POST OFFICE DR.
LOST CREEK, WV 26385

LOHR, DAVID W
74 JUNE BUG DR.
LOST CREEK, WV 26385

LAMBERT, MARTHA E
4062 DUCK CREEK RD.
LOST CREEK, WV 26385

Timothy P. Roush, PS
HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
troush@hgenergyllc.com
304-420-1120

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JAN 15 2019

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Environmental Protection

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

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

Date of Notice: 8/29/19 **Date of Planned Entry:** 9/03/19

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
 REGISTERED MAIL
 METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s) * HE will not be noticed

Name: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101

Name: _____
Address: _____

Name: _____
Address: _____

COAL OWNER OR LESSEE

Name: NA
Address: _____

MINERAL OWNER(s)

Name: Mineral Owners
Address: _____

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: West Virginia
County: Harrison
District: Grant/Union
Quadrangle: West Milford WV 7.5'

Approx. Latitude & Longitude: 39.151423 / -80.402435
Public Road Access: SR 19
Watershed: Middle West Fork Creek
Generally used farm name: Neel

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

RECEIVED
Office of Oil and Gas

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC
Telephone: 304-420-1119
Email: cwhite@hgenergyllc.com

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-3172

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Environmental Protection

Oil and Gas Privacy Notice:

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

WW-6A3NEEL 1207 S-9H(1-12)Page 1 ContinuedMineral Owners

Bernard B McWhorter
P.O. Box 547
Jane Lew, WV 26378

Betty E. Sands
228 Pomenade Circle
Lake Mary, FL 32746

Brenda Sue Cross
143 Lilac Ln
Philippi, WV 26416

Charles K Saeler
P.O. Box 121
Ellerslie, MD 21529

Charles K Saeler
14008 S Gardner Ave
Ellerslie, MD 21529

Christina L Workman
2803 McDermott Ridge Rd
Buckhannon, WV 26201

Cynthia Kay Randolph Barnes
2104 1/2 Pride Ave
Clarksburg, WV 26301

Cynthia McWhorter Berry
1880 Loon Court
Myrtle Beach, SC, 29575

Dana Lee Bassell
173 Water Oak Dr
Madison, AL 35758

David E. Bowyer
12088 Middle Island Rd
Alma, WV, 26320

Debra Kay Kittle
908 Point Pleasant Rd
Belington, WV 26250

Elizabeth A. Fultineer
1925 Goff Ave
Clarksburg, WV, 26301

Genevieve P Saeler
4798 US Highway 19N.
Jane Lew, WV 26378

John Henry McWhorter
5392 Duck Creek Rd
Alma, WV 26320

Jonnene Kay Goglin
187 Blackwater Drive
Harvest, AL, 35749

Joseph M Sands
866 Valencia Rd
S Daytona, FL 32119

Kathy Haller Day Revocable Living Trust
P.O. Box 1308
Young Harris, GA 30582

Kimberly "Kim" Powers
129 Huckleberry Ct
Daytona, FL 32124

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WW-6A3
(1-12)

Page 1 Continued

Mineral Owners

Margaret V Saeler Burkett
2522 Carrington Way
Frederick, MD 21702

Mari-Lisa McWhorter Marlowe
9980 Lake Side Drive
Tuscaloosa, AL 35406

Martha Jean Moss
227 Bonnie Brook Dr
Charlotte, MI 48813

Mary H. Balmer, aka Mary Jean Balmer
619 Ohio Blvd
Eustis, FL 32726

Mary Jane McWhorters
795 W 2nd Ave
Weston, WV 26452

Mary Jean Carroll
6218 Bermuda Ln
Mount Morris, MI 48458

Michael A. Haller
9605 Tinsmith Lane
Burke, VA, 22015

Mildred L Brooks
c/o Dan Spengler
217 Bridgeside Ct
Roseville, CA 95747

Mildred L. Brooks
3800 W Wilson St 243
Banning, CA, 92220

NAJ, LLC
c/o Robert L. Johns
216 Brooks St, Suite 200
Charleston, WV 25301

Paula Denise Mosier
2102 Covert Rd
Burton, MI, 48509

Peggy Shuman
304 Nathans St, Apt H
Elkins, WV 26241

Rhonda Koutsobaris
3478 Duck Creek Rd
Lost Creek, WV 26385

Salvation Army
P.O. Box 366
Clarksburg, WV 26301

Sands Family Declaration of Trust
Betty E. Sands Trustee
651 NE 35th Loop
Ocala, FL 34479

Sandy Chamberlain
3805 W Elgin St
Broken Arrow, OK 74012

Steven Keith Reed
P.O, Box 544
Slater, IA, 50244

Suzanne D. Simmons
301 WV Highway 74.
Coxs Mills, WV 26342

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WW-6A3
(1-12)

Page 1 Continued

Mineral Owners

Timothy Wayne Reed
208 West Harrison Rd
Zearing, IA, 50278

Waco Oil and Gas Inc.
PO BOX 880
Glenville, WV 26351

Zhen Wang
1845 Oakland Dr
Mount Pleasant, MI 48858

Trisha McWhorter
1313 30th St
Orlando, FL 32805

William L. Thompson
240 Hite Hollow Rd
Hyndman, PA 15545

*HG Energy II Appalachia, LLC
5260 Dupont Road
Parkersburg, WV 26101

*will not be noticed by certified mail

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

4703305974

August 26, 2019

RE: Neel 1207 S-9H
Grant/Union District, Harrison County
West Virginia

To Whom It May Concern:

Enclosed is a copy of a Department of Environmental Protection "Notice of Entry For Plat Survey" form WW-6A3. This notice is provided to you as a royalty owner to advise you that HG Energy II Appalachia, LLC, is beginning the process of applying for permits to drill a well(s) where you are identified as an owner of minerals underlying such tract in the county tax records. A well work permit application will be filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because you are an owner of mineral rights on one or more of the underlying leases impacted by this well (s). Statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WVDEP at 304-926-0450, located at 601 57th Street, Charleston, WV. Copies of such documents or additional information related to horizontal drilling may also be obtained by visiting the WV DEP online.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119. If you have questions regarding lease issues or address changes, please call Mark Schall at 304-420-1115.

Very truly yours,

Diane White

Diane C. White

Enclosures

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4703-05974

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

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

Notice Time Requirement: Notice shall be provided at least TEN (10) days prior to filing a permit application.

Date of Notice: 09/11/2019 **Date Permit Application Filed:** 09/13/2019

Delivery method pursuant to West Virginia Code § 22-6A-16(b)

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

Pursuant to W. Va. Code § 22-6A-16(b), at least ten days prior to filing a permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner notice of its intent to enter upon the surface owner's land for the purpose of drilling a horizontal well: *Provided*, That notice given pursuant to subsection (a), section ten of this article satisfies the requirements of this subsection as of the date the notice was provided to the surface owner: *Provided, however*, That the notice requirements of this subsection may be waived in writing by the surface owner. The notice, if required, shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative.

Notice is hereby provided to the SURFACE OWNER(s):

Name: HG Energy II Appalachia, LLC * Notice Not Sent to HG Name: _____
Address: 5260 Dupont Road Address: _____
Parkersburg, WV 26101

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(b), notice is hereby given that the undersigned well operator has an intent to enter upon the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 551633.9
County: Harrison Northing: 4333750.4
District: Grant/Union Public Road Access: SR 19/Hackers Creek Road
Quadrangle: West Milford Generally used farm name: Hubert E & Sandra K Neel
Watershed: Middle West Fork Creek

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(b), this notice shall include the name, address, telephone number, and if available, facsimile number and electronic mail address of the operator and the operator's authorized representative. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com Diane White
Facsimile: 304-863-3172

Authorized Representative: Diane White
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119
Email: dwhite@hgenergyllc.com
Facsimile: 304-863-3172

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Oil and Gas Privacy Notice:

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

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 09/11/2019 **Date Permit Application Filed:** 09/13/2019

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL HAND
- RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: HG Energy II Appalachia, LLC * Notice Not Sent to HG Name: _____
 Address: 5260 Dupont Road Address: _____
 Parkersburg, WV 26101

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>4333750.4</u>
County:	<u>Harrison</u>		Northing:	<u>551633.9</u>
District:	<u>Union</u>	Public Road Access:	<u>SR19/Hackers Creek Road</u>	
Quadrangle:	<u>West Milford</u>	Generally used farm name:	<u>Hubert E & Sandra K Neel</u>	
Watershed:	<u>Middle West Fork Creek</u>			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by W. Va. Code § 22-6A-10(b) to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: HG Energy II Appalachia, LLC
 Telephone: 304-420-1119
 Email: dwhite@hgenergyllc.com *Diane White*

Address: 5260 Dupont Road
Parkersburg, WV 26101
 Facsimile: 304-853-3172

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Oil and Gas Privacy Notice:

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



4703305974

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

Byrd E. White, III
Secretary of Transportation/
Commissioner of Highways

September 20, 2019

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

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

Subject: DOH Permit for the Neel 1207 Pad, Harrison County
1207 S-9H Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2018-1374 issued to HG Energy II Appalachia for access to the State Road for a well site located off Harrison County Route 19/20 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

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Cc: Diane White
HG Energy II, LLC
CH, OM, D-4
File

4703805974

List of Frac Additives by Chemical Name and CAS #**Neel 1207 Well Pad (N-1H to N-6H, S-7H to S-12H)**

Chemical Name	CAS #	Multiple CAS #'s
Pro Shale Slik 405	Mixture	68551-12-2 7647-14-5 12125-02-9 64742-47-8
Pro Hib II	Mixture	68412-54-4 68607-28-3 107-21-1 111-76-2 67-56-1 107-19-7
Silica Sand and Ground Sand	Mixture	14808-60-7 1344-28-1 1309-37-1 13463-67-7
Hydrochloric Acid 22 DEG BE	7647-01-0	
PROGEL - 4.5	64742-96-7	
BIO CLEAR 2000	Mixture	25322-68-3 10222-01-2
SCALE CLEAR SI 112	107-21-1	
PROBREAK 4	Mixture	57-50-1 107-21-1
Sulfamic Acid	5329-14-6	
PRO - Flow - 102-N	Mixture	67-63-0 68439-45-2 2687-96-9
PROGEL - 4	9000-30-0	

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West Virginia Department of
Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, WV 25304-2345

DEP Office Use only	
Date Received by Oil & Gas:	9/24/19
Assigned Impoundment ID #:	033-FWA-00107 Neel 1207

Permit Associated Impoundment / Pit Registration

Instruction: This form is to be used to register impoundments or waste pits, greater than 5,000 bbls, that are associated with a WVDEP, Office of Oil and Gas, well drilling permit. An **associated impoundment or pit** means it has been designed and included in the well drilling permit application, will follow the reclamation time frame of well work permit, and will be approved in conjunction with the well work permit. An impoundment ID number will be assigned by WVDEP, Office of Oil and Gas, to all impoundments and pits. This impoundment ID number will be sent to the applicant following receipt of this form by WVDEP. Please reference this impoundment ID number with all future correspondence and reference to this impoundment. Conditions as described in W.Va. State Rule §35-4-21 will be followed as it relates to impoundments and pits.

Section 1 – Operator Information

Operator Name:	HG Energy II Appalachia, LLC.		
Operator ID:	494519932		
Address: Street	5260 Dupont Road		
City:	Parkersburg	State:	WV Zip: 26101
Contact Name:	Diane White	Contact Title:	Accountant
Contact Phone:	304-420-1119	Contact Email:	dwhite@hgenergyllc.com

Section 2 – Engineering / Design Contractor Information

Design will be contracted	<input checked="" type="checkbox"/>	Designed in-house	<input type="checkbox"/>
Company Name:	Penn Environmental & Remediation, Inc.		
Address: Street	111 Ryan Court		
City:	Pittsburgh	State:	PA Zip: 15205
Contact Name:	Matthew E. Pierce	Contact Title:	Senior Project Manager
Contact Phone:	412-722-1222	Contact Email:	mpierce@penn-er.com
Certifying Professional Engineer:	Matthew E. Pierce		
Professional Engineer Registration Number:	20458		

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Office of Oil and Gas

Section 3 - Impoundment / Pit InformationType of Structure. Check one of two choices below: Freshwater Impoundment Waste PitNote: Any waste in a pit will make it a waste pit.Name of Structure (Company Name :) HG Energy II Appalachia, LLC.County: Harrison District: GrantUSGS 7.5' Quad Map Name: West Milford, WVFarm Name: HG Energy II Appalachia, LLC.Pad Name: 1207Surface Owner Name: HG Energy II Appalachia, LLCPhysical Description of Location: Less than 2 miles East of the intersection of SR 19 (Milford Street) and Hackers Creek.Site access East off of Hackers Creek.

(Note: Give general location, example: 2 miles south of Smalltown, WV on Rt. 22, left on Buffalo Creek)

Watershed (nearest perennial): West Fork RiverDistance (Drainage Distance) to nearest perennial stream: 3.15 Miles

Location Coordinates (NAD83, Decimal Degrees (xx.xxxx, -xx.xxxx))

Latitude: 39.1519 Longitude (Use negative sign): -80.4012UTM Coordinates: 1810167.923 E 14218488.684 N

Access Road Coordinates (junction of state highway access)

Latitude: 39.1478 Longitude (Use negative sign): -80.4297UTM Coordinates: 1802083.571 E 14216963.591 N

Approximate Dimensions

Length: 608' Width: 239' Height: 15'

Note: If irregularly shaped, give approximate dimensions of long axis.

Total Capacity – Provide all units of measure below:

Barrels: 243,644 Gallons: 10,232,903 Acre-Feet: 31.404

Capacity with 2' Freeboard – Provide all units of measure below:

Barrels: 201,091 Gallons: 8,445,709 Acre-Feet: 25.919

Incised volume:

Barrels: 59,469 Gallons: 2,497,645 Acre-Feet: 7.665

Net impounded volume: (Total volume less incised volume.)

Barrels: 184,175 Gallons: 7,735,258 Acre-Feet: 23.739Anticipated Construction Start Date (estimation, non-binding): April, 2019Note: No construction may begin on **Associated** impoundment until WVDEP issues the drilling permit. At least 7 calendar days prior to confirmed construction start date, notify the Office of Oil & Gas, and the local Oil and Gas inspector of construction start date. Use form IMP-2, "Notification of Impoundment / Pit Construction."



Section 4 - Associated Well Numbers and API Numbers. List associated well numbers and API number. API numbers may not be assigned at time of registering this impoundment, if so list as pending.

Well Number(s):	API Number(s) – If issued:
Neel 1207 N-1H	
Neel 1207 N-2H	
Neel 1207 N-3H	
Neel 1207 N-4H	
Neel 1207 N-5H	
Neel 1207 N-6H	

Section 5 - Required Information Checklist To Register Permit Associated Impoundments or Pits. Include the following information and plans with application.

- | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Engineered Construction Plans, certified by WV Registered P.E.
<input checked="" type="checkbox"/> Erosion and Sediment Control Plan, certified by WV Registered P.E.
<input checked="" type="checkbox"/> Reclamation Plan, certified by WV Registered P.E. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Section 6 – Dam Standard Qualifying Evaluation

- | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> The design of this structure has been evaluated by the applicant to determine it does NOT qualify to be defined as a dam, under W.Va Rule §47-34. If the design of this structure qualifies it to be defined as a dam, all permits regulating dams will be required prior to registering the structure with the Office of Oil and Gas. The dam standard, from the WVDEP, Div. Of Water and Waste, is available for review at: http://www.dep.wv.gov/WWE/ee/ds/Pages/default.aspx |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Section 7 –Comments – Provide any additional comments concerning this project

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Section 8 - Application Certification

I hereby certify that the information listed above is true and accurate. I understand that this pit/impoundment is to be constructed only in a location appropriate for the storage of water, including wastewater, and will be constructed in accordance with plans designed and certified by a West Virginia registered professional engineer. I further recognize that all required plans have been submitted to the Office of Oil and Gas. I understand that after construction, and prior to any fluid being placed in the pit/impoundment, it shall be inspected by a West Virginia registered professional engineer to ensure compliance with the certified design and construction plan, and that the professional engineer shall certify that this structure was constructed in accordance with design and construction plans. I understand that such certification shall be in writing to the Chief and that no fluids may be placed in the pit/impoundment until the certification has been filed with the chief. I agree that this pit/impoundment shall be constructed, maintained, operated and closed in accordance with all applicable laws and rules, including the requirements of W. Va. Code R § 35-4-2 .

Name: Diane White

Title: Accountant

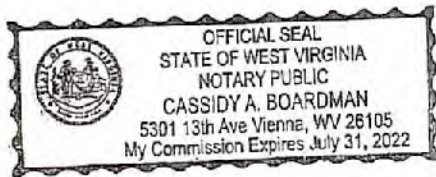
Signature: Diane White

Taken, subscribed and sworn to before me this, 8th Day of January 20 19

Notary Public: Cassidy Boardman

My commission expires: 7/31/2022

Notary Seal:



Section 9. Submittal Instructions

Submit original paper copy of application to:
West Virginia Department of Environmental Protection
Office of Oil and Gas
Impoundment Registration
601 57th Street, SE
Charleston WV 25304

Email PDF file format of this application and all related engineering Plans to :
Depimpoundments@wv.gov

RECEIVED
Office of Oil and Gas

SEP 24 2019

CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS HG 1207 WELL PAD & IMPOUNDMENT

GRANT DISTRICT
HARRISON COUNTY
WEST VIRGINIA



Estimated Gross Material Balance (CY)			
Final Development - Gravel Ditch			
Item	Unit	Volume	Source
150' Well Pad & Impoundment	44,887	40,308	4,451
Access Road	11,892	15,782	-3,894
Total	56,779	56,090	689
SCA Available for Aggregate (Foot)			
Per		6,109	
Total Site Balance		6,109	
General Notes (Limits Development)			
Est. Open Space		8,569	
Est. 1:500 Slope (Volume) (Creek City)		27,512	
Minimum Total Bookable Capacity Required (CCK)		27,054	

- Material balance for est. gross earthwork quantities only
- Topsoil est. volume based on 8 inches average depth
- Material balance and aggregate quantities based on excavation and may not be representative on actual quantities
- Fillwaters do not reflect contractor dry volumes

Estimated Gravel Quantities			
Item	Volume (CY)	Source	Notes
150' Well Pad & Impoundment	40,308	4,451	10.1%
Access Road	15,782	12,782	80.3%
Total	56,090	17,233	30.7%
Estimated Total Gravel (Acres)			
150' Well Pad & Impoundment	11,202		
Access Road	9,192		
Total	20,394		
Estimated Access Road Length (Feet)			
150' Well Pad & Impoundment	5,511		
Access Road	12,211		
Total	17,722		

CONSTRUCTION SEQUENCE

- Prior to commencement of any earth disturbance activity including clearing and grubbing, the registrant shall call West Virginia 811 or 1-800-245-4848 to identify all utility lines. The registrant also must clearly delineate sensitive areas, riparian forest buffer boundaries, the limits of clearing, and trees that are to be conserved within the project site, and shall install appropriate barriers where equipment may not be parked, staged, operated or located for any purpose.
- Site access - This is the first land-disturbance activity to take place at the site and should provide BMPs to minimize accelerated erosion and sedimentation from the following areas: entrance to the site, construction routes, and areas designated for equipment or other use at the site including parking, stockpiles.
- Sediment Barriers - Install perimeter BMPs after the construction site is accessed, keeping associated clearing and grubbing limited to only that amount required for installing perimeter BMPs.
- Land Clearing and Grading - Implement clearing and grading only after all down slope EAS BMPs have been constructed and stabilized.
- Surface Stabilization - Apply temporary or permanent stabilization measures immediately to any disturbed areas where work has reached final grade, has been constructed and stabilized.
- Construction of Buildings, Utilities, and Paving - During construction, install and maintain any additional erosion and sediment control BMPs, and implement any structural post construction stormwater BMPs that may be required.
- Upon completion of pad grading, compact the pad to grade and begin placement of pad seal cement.
- Final Stabilization, "Topsoiling, Trees and Shrubs" - After construction is completed, install stabilization BMPs including: permanent seeding, mulching and strew, and complete implementation of stormwater BMPs in this last construction phase. Stabilize all open areas, including borrow and spoil areas, and remove all temporary BMPs and stabilize any disturbances associated with the removal of the BMP.



PREPARED FOR
HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD
PARKERSBURG, WEST VIRGINIA 26101
(304) 420-1100

PREPARED BY
PENN ENVIRONMENTAL & REMEDIATION, INC.
111 RYAN COURT
PITTSBURGH, PA 15205
(412) 722-1222

SHT. NO.	SHEET TITLE
1	TITLE SHEET
2A-2G	SITE DEVELOPMENT PLANS
3	PAD & IMPOUNDMENT SECTIONS
4A-4D	ACCESS ROAD SECTIONS
5A-5F	CONSTRUCTION NOTES & DETAILS
6A-6F	RESTORATION PLAN
7	PROPERTY MAP

WELL #	LAT.	LONG.
N-1H	N 39.152270°	W 80.402724°
N-2H	N 39.152294°	W 80.402672°
N-3H	N 39.152290°	W 80.402620°
N-4H	N 39.152297°	W 80.402567°
N-5H	N 39.152303°	W 80.402515°
N-6H	N 39.152309°	W 80.402463°
S-7H	N 39.151411°	W 80.402540°
S-8H	N 39.151417°	W 80.402487°
S-9H	N 39.151423°	W 80.402435°
S-10H	N 39.151430°	W 80.402383°
S-11H	N 39.151436°	W 80.402331°
S-12H	N 39.151442°	W 80.402278°

	LATITUDE	LONGITUDE
1207 WELL PAD ACCESS ROAD ENTRANCE	N 39.152051°	W 80.420447°
1208 WELL PAD ACCESS ROAD ENTRANCE	N 39.149029°	W 80.429878°

RECORD OWNER	RECORD LOT #	RECORD AREA OF LOT	AREA WITHIN LOT
WELL HUBERT E & SAKINA R	17-12-0445-0005-0000	89.07 AC.	15.027 AC.
HALTER USA W	17-12-0445-0003-0000	64.00 AC.	2.654 AC.
HALTER USA W	17-12-0445-0012-0000	54.50 AC.	2.858 AC.
HALTER USA W	17-12-0445-0011-0000	75.50 AC.	0.780 AC.
HALTER USA W	17-12-0445-0010-0000	66.87 AC.	3.475 AC.
HALTER USA W	17-12-0445-0002-0000	81.57 AC.	3.459 AC.
SPROCKERS WILLIAM W & S LINDA L	17-12-0445-0031-0000	287.94 AC.	0.025 AC.
TOTAL LIMIT OF DISTURBANCE			28.258 AC.

WEST VIRGINIA CALL BEFORE YOU DIG! Dial 811 or 800.245.4848



TITLE SHEET
HG 1207 WELL PAD & IMPOUNDMENT
GRANT DISTRICT
HARRISON COUNTY, WEST VIRGINIA

PREPARED FOR
HG ENERGY II APPALACHIA, LLC
PARKERSBURG, WEST VIRGINIA

APPROVED: MFP 12/16/2018
ENGINEER: MFP 12/17/2018
DRAWN: SJA 12/11/2018
PROJECT No.: 4000-PAD0701
DRAWING NUMBER: PAD07831-001
SHEET 1

Penn E&R
Environmental & Remediation, Inc.
111 RYAN COURT, PITTSBURGH, PA 15205
412-722-1222

