




---

 west virginia department of environmental protection
 

---

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

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

Thursday, March 28, 2019  
 WELL WORK PERMIT  
 Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC  
 5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for 1209 S-9H  
 47-033-05945-00-00

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

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

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

James A. Martin  
 Chief

Operator's Well Number: 1209 S-9H  
 Farm Name: HG ENERGY II APPALACHIA  
 U.S. WELL NUMBER: 47-033-05945-00-00  
 Horizontal 6A New Drill  
 Date Issued: 3/28/2019

# 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.

## 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](mailto:DEPOOGNotify@wv.gov).



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

03/29/2019

January 24, 2019

EnerVest Operating Company  
300 Capitol Street, Suite 200  
Charleston, WV 25301

RE: Area of Review – Nays 1209 Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nays 1209 well 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nays 1209 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 (Nays 1209 S laterals). A plat for the wells 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](mailto: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

FEB - 5 2019

WV Department of  
Environmental Protection



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

03/29/2019

January 24, 2019

EQT Production Company  
115 Professional Place  
Bridgeport, WV 26330

RE: Area of Review – Nays 1209 Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nays 1209 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nays 1208 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 (Nays 1209 S Well Pad). A plat for the wells 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](mailto: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

FEB - 5 2019

WV Department of  
Environmental Protection



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

03/29/2019

January 24, 2019

Alliance Petroleum Corporation  
67 Collins Run Road  
Glenville, WV 26351

RE: Area of Review – Nays 1209 South Laterals/Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nays 1209 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nays 1209 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 (Nays 1209 S Well Pad). A plat for the wells 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](mailto: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

FEB - 5 2019

WV Department of  
Environmental Protection



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

03/29/2019

January 24, 2019

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

RE: Area of Review – Nays 1209 Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nutter 1208 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nutter 1209 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 (Nays 1209 S laterals). A plat for the wells 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](mailto: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

FEB - 5 2019

WV Department of  
Environmental Protection



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

03/29/2019

January 24, 2019

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

RE: Area of Review – Nays 1209 Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nays 1209 well 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nays 1209 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 (Nays 1209 S laterals). A plat for the wells 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](mailto: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  
FEB - 5 2019  
WV Department of  
Environmental Protection





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

03/29/2019

January 24, 2019

Key Oil Company, Inc.  
4225 Nashville Road  
Franklin, KY 42134

RE: Area of Review – Nays 1209 Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nays 1209 well 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nays 1209 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 (Nays 1209 S laterals). A plat for the wells 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](mailto: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

FEB - 5 2019

WV Department of  
Environmental Protection



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

03/29/2019

January 24, 2019

Alliance Petroleum Corporation  
67 Collins Run Road  
Glennville, WV 26351

RE: Area of Review – Nays 1209 South Laterals/Well Pad (S-7H to S-12H)  
Hydraulic Fracturing Notice

Dear Sir:

HG Energy II Appalachia, LLC, has developed a Marcellus pad (Nays 1209 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 6900' TVD) and existing conventional natural gas wells.

HG Energy anticipates conducting hydraulic fracturing of the Nays 1209 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 (Nays 1209 S Well Pad). 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](mailto:dwhite@hgenergyllc.com). You may also contact the WV Office of Oil and Gas at 304-926-0444.

Sincerely,

*Diane White*

Diane White

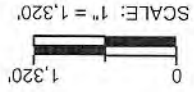
Enclosure

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection



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

1/24/2019

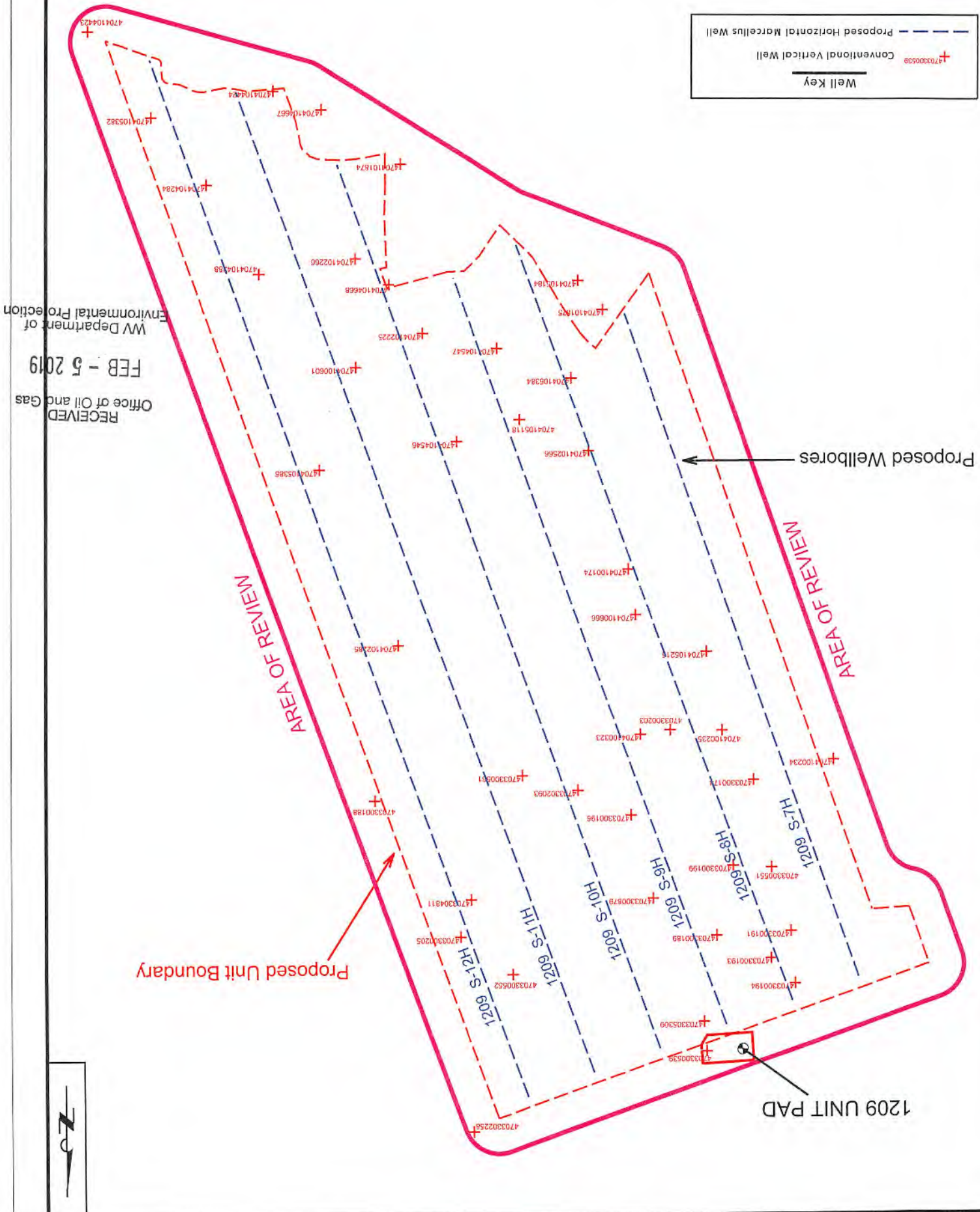
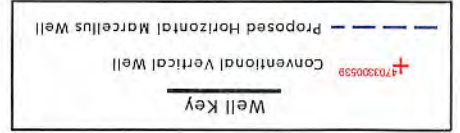


Union District, Harrison County, W.Va.  
Hackers Creek District, Lewis County, W.Va.  
Proposed 1209 S-7H Proposed 1209 S-8H  
Proposed 1209 S-9H Proposed 1209 S-10H  
Proposed 1209 S-11H Proposed 1209 S-12H

**6102/6/29/30 1209 UNIT PAD**

Area of Review for:

NOTE:  
See Attached Spreadsheet for Well Data  
DATA SOURCE  
WVGES Data Set - 2017; WVDEP Website



RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection



**EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:  
1209 UNIT SOUTH PAD 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	4703300063	Harrison	J A Hardway	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1636	ACTIVE	39.150649	-80.444245
2	4703300174	Harrison	J M Simon	Dominion Energy Transmission, Inc.	Berea Ss	Storage	1635	ACTIVE	39.137511	-80.444118
3	4703300176	Harrison	J B Gusman	Dominion Energy Transmission, Inc.	Gantz	Storage	1542	ACTIVE	39.149066	-80.444789
4	4703300188	Harrison	H Neeley	Dominion Energy Transmission, Inc.	Gordon Stray	Storage	1928	ACTIVE	39.138239	-80.42509
5	4703300189	Harrison	J B Gusman	Dominion Energy Transmission, Inc.	Gordon Stray	Storage	1945	ACTIVE	39.143536	-80.442195
6	4703300191	Harrison	J Q Musser	Dominion Energy Transmission, Inc.	Gordon	Storage	1845	ACTIVE	39.143391	-80.445922
7	4703300193	Harrison	J G Musser	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1715	PLUGGED	39.144441	-80.444918
8	4703300194	Harrison	J A Hardway	Dominion Energy Transmission, Inc.	Gantz	Storage	1580	ACTIVE	39.145423	-80.446108
9	4703300196	Harrison	L D Reed	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2070	ACTIVE	39.138853	-80.437952
10	4703300199	Harrison	J K Musser	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1976	ACTIVE	39.14084	-80.443046
11	4703300203	Harrison	S L Casto 1	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2057	ACTIVE	39.135554	-80.439959
12	4703300205	Harrison	W L Hughes	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1904	ACTIVE	39.143536	-80.429337
13	4703300539	Harrison	J B Gusman	Dominion Energy Transmission, Inc.	Benson	Gas	4115	ACTIVE	39.148035	-80.441636
14	4703300551	Harrison	Bonnie M Detamore	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4170	ACTIVE	39.140924	-80.44499
15	4703300552	Harrison	J B Gusman	Dominion Energy Transmission, Inc.	Benson	Gas	4220	ACTIVE	39.144988	-80.431946
16	4703300561	Harrison	Howard Neeley	Dominion Energy Transmission, Inc.	Benson	Gas	4431	ACTIVE	39.137295	-80.432505
17	4703300879	Harrison	Eric K & Susie G Decker	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4520	ACTIVE	39.142085	-80.439027
18	4703302093	Harrison	Howard Neeley	Dominion Energy Transmission, Inc.	Gordon	Storage	2374	ACTIVE	39.137877	-80.4353
19	4703302258	Harrison	J B Gusman	Dominion Energy Transmission, Inc.	UNKNOWN	Storage	1759	ACTIVE	39.151084	-80.429896
20	4703304641	Harrison	William B Ferrell Jr	Dominion Energy Transmission, Inc.	Benson	Gas	4264	ACTIVE	39.151966	-80.43734
21	4703304811	Harrison	Elizabeth Layman	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4499	ACTIVE	39.142105	-80.429888
22	4703305309	Harrison	Nays Riverbend Farm Inc	Dominion Energy Transmission, Inc.	Weir	Gas	1405	ACTIVE	39.146873	-80.441525
23	4704100174	Lewis	Alba V Hitt 1	Dominion Energy Transmission, Inc.	Up Devonian	Gas	4145	ACTIVE	39.129313	-80.437909
24	4704100234	Lewis	R A Beeghley	Dominion Energy Transmission, Inc.	Gantz	Storage	1742	ACTIVE	39.136739	-80.448136
25	4704100235	Lewis	Rosa Musser	Dominion Energy Transmission, Inc.	Gantz	Storage	4500	ACTIVE	39.135579	-80.442549
26	4704100323	Lewis	S G Hall	Dominion Energy Transmission, Inc.	Gantz	Storage	1760	ACTIVE	39.135724	-80.438452
27	4704100601	Lewis	Isaac Jackson	Dominion Energy Transmission, Inc.	Benson	Gas	4357	ACTIVE	39.121463	-80.424285
28	4704100666	Lewis	Nora Walker	UNKNOWN	Gantz	Storage	1589	ABANDONED	39.131084	-80.438265
29	4704101874	Lewis	M D Walker 5	Alliance Petroleum Corp.	Benson	Gas	4305	ACTIVE	39.113583	-80.426591
30	4704101875	Lewis	M D Walker 6	EQT Production Co.	Benson	Gas	4262	ACTIVE	39.119259	-80.436687
31	4704102225	Lewis	Howard Neely	Alliance Petroleum Corp.	Hampshire Grp	Gas	2484	ACTIVE	39.120162	-80.427649
32	4704102266	Lewis	F Colvin	Alliance Petroleum Corp.	Fifth Sand	Gas	2286	ACTIVE	39.117262	-80.424298

FEB - 5 20

WV Department of Environmental Protection

33	4704102285	Lewis	H Bailey	Dominion Energy Transmission, Inc.	Greenland Gap Fm		4140	ACTIVE	39.132244	-80.426348
34	4704102566	Lewis	J H Bailey	Enervest Operating, LLC	Benson		4254	ACTIVE	39.12472	-80.435962
35	4704104284	Lewis	Charles D Cole 1	Dominion Energy Transmission, Inc.	Greenland Gap Fm		4322	ACTIVE	39.114361	-80.416852
36	4704104288	Lewis	Charles D Cole II 2	Dominion Energy Transmission, Inc.	Greenland Gap Fm		4473	ACTIVE	39.117842	-80.419458
37	4704104423	Lewis	James Winemiller	Ross & Wharton Gas Co.	UNKNOWN	UNKNOWN	-	PLUGGED	39.108416	-80.410922
38	4704104424	Lewis	Roy C Bargerhuff	Ross & Wharton Gas Co.	UNKNOWN	UNKNOWN	4085	PLUGGED	39.110736	-80.420202
39	4704104546	Lewis	Ruth E Turner	Alliance Petroleum Corp.	Greenland Gap Fm	Gas	4609	ACTIVE	39.124367	-80.429326
40	4704104547	Lewis	Ruth Turner	Alliance Petroleum Corp.	Greenland Gap Fm	Gas	4569	ACTIVE	39.120742	-80.431373
41	4704104667	Lewis	James B/C Sumpter	Key Oil Co.	Greenland Gap Fm	Gas w/ Oil Show	4906	ACTIVE	39.111461	-80.422622
42	4704104668	Lewis	John H Neely	Key Oil Co.	Elk	Gas w/ Oil Show	4870	ACTIVE	39.118277	-80.425974
43	4704105118	Lewis	Kevin B/Sherri K Jerden	Berry Energy, Inc.	Benson	Gas	4389	ACTIVE	39.123497	-80.432491
44	4704105184	Lewis	Donald E & Glenna Linger	Berry Energy, Inc.	Greenland Gap Fm	Gas	4409	ACTIVE	39.118132	-80.435468
45	4704105215	Lewis	Lee Stalnaker	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4309	ACTIVE	39.132534	-80.441803
46	4704105382	Lewis	Charles D Cole II	Dominion Energy Transmission, Inc.	Brallier	Gas	4573	ACTIVE	39.111751	-80.414088
47	4704105384	Lewis	Kevin B & Sherri K Jerden	Berry Energy, Inc.	Benson	Gas	4390	ACTIVE	39.121902	-80.435097
48	4704105386	Lewis	Walter Neely Jr Trust	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	3442	ACTIVE	39.125428	-80.422437

RECEIVED  
Office of Oil and Gas

FEB - 5 2019

WV Department of  
Environmental Protection

EXISTING WELLS 4,500' IN DEPTH OR GREATER:

**1209 UNIT SOUTH PAD 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	4703304811	Harrison	Elizabeth Layman	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4499	ACTIVE	39.142105	-80.429888
2	4703300879	Harrison	Eric K & Susie G Decker	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4520	ACTIVE	39.142085	-80.439027
3	4704104547	Lewis	Ruth Turner	Alliance Petroleum Corp.	Greenland Gap Fm	Gas	4569	ACTIVE	39.120742	-80.431373
4	4704105382	Lewis	Charles D Cole II	Dominion Energy Transmission, Inc.	Brallier	Gas	4573	ACTIVE	39.111751	-80.414088
5	4704104546	Lewis	Ruth E Turner	Alliance Petroleum Corp.	Greenland Gap Fm	Gas	4609	ACTIVE	39.124367	-80.429326
6	4704104668	Lewis	John H Neely	Key Oil Co.	Elk	Gas w/ Oil Show	4870	ACTIVE	39.118277	-80.425974
7	4704104667	Lewis	James B/C Sumpter	Key Oil Co.	Greenland Gap Fm	Gas w/ Oil Show	4906	ACTIVE	39.111461	-80.422622

RECEIVED  
Office of Oil and Gas

FEB - 5 2019

WV Department of  
Environmental Protection

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Nays 1209 S-6H  
Well Pad Name: Nays 1209

18)

**CASING AND TUBING PROGRAM**

03/29/2019

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	100'	100'	Drilled In
Fresh Water	20"	NEW	J-55	94	600'	600'	40% excess yield = 1.20, CTS
Coal	13 3/8"	NEW	J-55	68	1735'	1735'	40% excess yield = 1.20, CTS
Intermediate	9 5/8"	NEW	J-55	40	2500'	2500'	40% excess yield = 1.20, CTS
Production	5 1/2"	NEW	P-110	23	18587'	18587'	20% excess yield = 1.15, tub yield = 1.05
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				CTS
Fresh Water	20"	24"	.438	2110	1200	Type 1, Class A	30% excess yield = 1.20, CTS
Coal	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	40% excess yield = 1.20, CTS
Intermediate	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	40% excess yield = 0% Excess Lead
Production	5 1/2"	8 1/2"	.415	14520	12500	Type 1/Class A	20% excess yield = 1.15, tub yield = 1.05
Tubing							
Liners							

RECEIVED  
Office of Oil and Gas

FEB - 5 2019

**PACKERS**

WV Department of  
Environmental Protection

Kind:				
Sizes:				
Depths Set:				

WW-6B  
(10/14)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Nays 1209 S-6H  
Well Pad Name: Nays 1209

19) Describe proposed well work, including the drilling and plugging back of any pilot hole: 03/29/2019

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 6900 feet. Drill horizontal leg to estimated 11,229 TMD, 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.

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): 16.148 acres

22) Area to be disturbed for well pad only, less access road (acres): 10.834 acres

23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casing.  
Production - centralized every 3 joints to surface.  
Casing - One casing on every joint.  
Intermediate - One Spigot on each 2 joints from every third joint to 100' from surface.  
Production - Run 1 split centralizer every 3 joints from the top of the curve to surface. Run 1 split centralizer every 3 joints from the 1st 8.5' long joint to the top of the curve.

RECEIVED  
Office of Oil and Gas

FEB 5 2019

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

Conductor - N/A, Casing to be drilled in w/ Steel Safety Rig.  
Push Water - 14.8 ppg PWS-1 + 3.2% base CaCl<sub>2</sub>, 4.2% Base NaCl + 1.2% CTS  
Casing - Lead: 14.8 ppg PWS-1 + 2.2% base CaCl<sub>2</sub>, 4.2% Base NaCl + 1.2% CTS  
Intermediate - Lead: 14.8 ppg PWS-1 + 2.2% base CaCl<sub>2</sub>, 4.2% Base NaCl, 1.2% CTS  
Production - Lead: 14.8 ppg PWS-1 + 2.2% base CaCl<sub>2</sub>, 4.2% Base NaCl, 1.2% CTS

WV Department of  
Environmental Protection

25) Proposed borehole conditioning procedures:

Conductor - Rotate the hole to clean at TD.  
Push Water - Once casing is setting depth, circulate a minimum of one hole volume with Push Water prior to pumping cement.  
Casing - Once casing is at setting depth, circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Intermediate - Once casing is at setting depth, circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Production - Once on interval with casing, circulate at max allowable pump rate for at least 24 hours to, or until volume and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

\*Note: Attach additional sheets as needed.





1209 S-9H  
Marcellus Shale Horizontal  
Harrison County, WV

				1209 S-9H SHL				237363.97N 1732703.69E		
Ground Elevation		1007'		1209 S-9H LP				237025.57N 1732603.61E		
Azm		160.751°		1209 S-9H BHL				226424.7N 1736305.34E		
WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	30"	30" 157.5# LS	Conductor	0	100	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	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
			Fresh Water	0	600					
	17.5"	13-3/8" 68# J-55 BTC	Kittaning Coal	660	665	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 ECP 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
			Little/Big Lime	1126 / 1167	1151 / 1243					
			Injun / Gantz (Storage)	1243 / 1535	1349 / 1585					
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1650 / 1730	1697 / 1742	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 Sray / Gordon	1785 / 1850	1850 / 1940					
			5th Sand	2035	2070					
			Bayard Sand	2125	2160					
	8.5" Vertical	5-1/2" 23# P-110 HC CDC HTQ	Spechley	2745	2763	9.0ppg SOBM	Lead: 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170	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=14520 psi Note:Actual centralizer schedules may be changed due to hole conditions
			Balltown	2965	3006					
			Benson	4050	4083					
			West Falls	4620	5865					
			Rhinestreet	5865	6140					
8.5" Curve	5-1/2" 23# P-110 HC CDC HTQ	Cashaqua	6140	6341	11.5ppg-12.5ppg SOBM	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 3 joints from the top of the curve.	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=14520 psi Note:Actual centralizer schedules may be changed due to hole conditions	
		Middlesex	6341	6421						
		West River	6421	6514						
		Burkett	6514	6540						
		Tully Limestone	6540	6644						
8.5" Lateral	5-1/2" 23# P-110 HC CDC HTQ	Hamilton	6644	6863	11.5ppg-12.5ppg SOBM	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 3 joints from the top of the curve.	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=14520 psi Note:Actual centralizer schedules may be changed due to hole conditions	
		Marcellus	6863	6914						
		TMD TVD (Production)	18587	6900						
			Onondaga	6914						

LP @ 8900' TVD / 7358' MD

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

+/-11229' ft Lateral

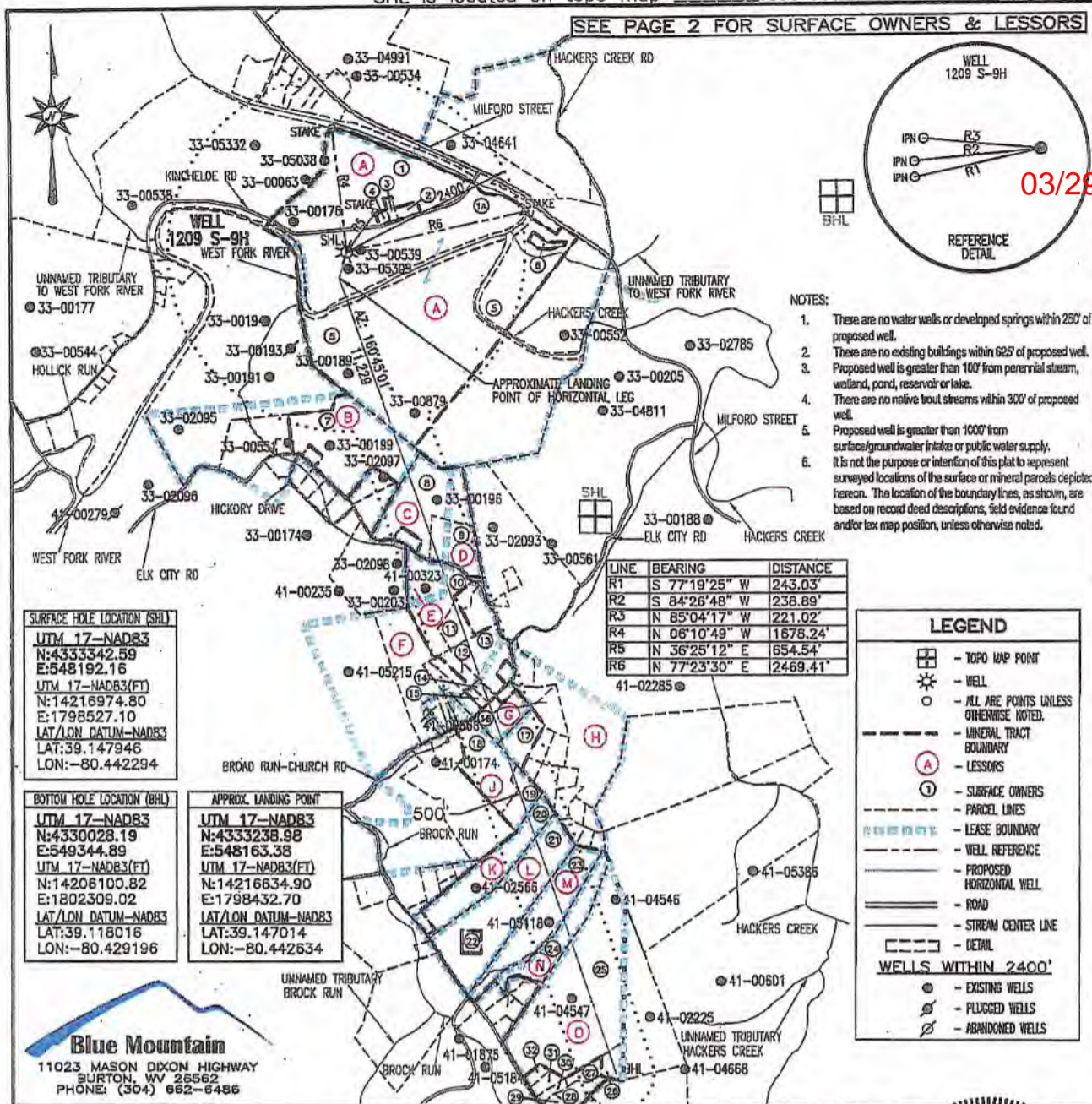
TD @ +/-6900' TVD  
+/-18587' MD

FEB 17 2019  
 RECEIVED  
 Office of Oil and Gas

4703305945

BHL is located on topo map 2,544 feet south of Latitude: 39°07'30"  
 SHL is located on topo map 6,818 feet south of Latitude: 39°10'00"

BHL is located on topo map 3,555 feet west of Longitude: 80°25'00"  
 SHL is located on topo map 7,268 feet west of Longitude: 80°25'00"



**SURFACE HOLE LOCATION (SHL)**

UTM 17-NAD83  
 N:4333342.59  
 E:548192.16

UTM 17-NAD83(FT)  
 N:14216974.80  
 E:1798527.10

LAT/LON DATUM-NAD83  
 LAT:39.147946  
 LON:-80.442294

**BOTTOM HOLE LOCATION (BHL)**

UTM 17-NAD83  
 N:4330028.19  
 E:549344.89

UTM 17-NAD83(FT)  
 N:14206100.82  
 E:1802309.02

LAT/LON DATUM-NAD83  
 LAT:39.118016  
 LON:-80.429196

**APPROX. LANDING POINT**

UTM 17-NAD83  
 N:4333238.98  
 E:548163.38

UTM 17-NAD83(FT)  
 N:14216634.90  
 E:1798432.70

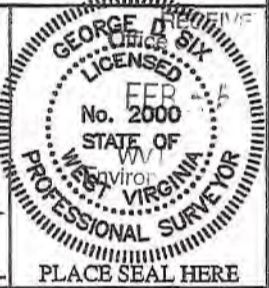
LAT/LON DATUM-NAD83  
 LAT:39.147014  
 LON:-80.442634

**Blue Mountain**  
 11023 MASON DIXON HIGHWAY  
 BURTON, WV 25622  
 PHONE: (304) 662-6486

FILE #: 1209 S-9H  
 DRAWING #: 1209 S-9H  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. White*  
 R.P.E.: \_\_\_\_\_ L.L.S.: P.S. No. 2000



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

DATE: JANUARY 25, 2019  
 OPERATOR'S WELL #: 1209 S-9H  
 API WELL #: 47 33  
 STATE COUNTY PERMIT

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

WATERSHED: MIDDLE WEST FORK CREEK ELEVATION: 1,007±

COUNTY/DISTRICT: HARRISON / UNION QUADRANGLE: WEST MILFORD, WV 7.5'

SURFACE OWNER: HG ENERGY II APPALACHIA, LLC ACREAGE: 95.06±

OIL & GAS ROYALTY OWNER: ANN COVINGTON, ET AL ACREAGE: 483.766±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,900± TMD: 16,676±

WELL OPERATOR: HG ENERGY II APPALACHIA, LLC DESIGNATED AGENT: DIANE C. WHITE  
 Address: 5260 DUPONT ROAD Address: 5260 DUPONT ROAD  
 City: PARKERSBURG State: WV Zip Code: 26101 City: PARKERSBURG State: WV Zip Code: 26101

# 1209 S-9H

## PAGE 2 OF 2

03/29/2019

	SURFACE OWNER	DIST-TM/PAR
1	DANNY LEE & ALICIA A. STICKEL	P/O 20-444/11.2
1A	HG ENERGY II APPALACHIA, LLC	P/O 20-444/11.2
2	HG ENERGY II APPALACHIA, LLC	20-444/11.3
3	AARON C. & CHRISTINA P. MEDINA	20-444/11
4	HG ENERGY II APPALACHIA, LLC	20-444/11.1
5	ERIC K. & SUSIE G. DECKER	12-444/21
6	ERIC K. & SUSIE G. DECKER	12-444/21.2
7	ROBERT D. & GEORGANNA STARKEY	12-444/29
8	MICHELLE HOPE DENNISON	12-444/31
9	MICHELLE HOPE DENNISON	12-444/31.1
10	WILLARD H. & JUDITH D. MCWHORTER	4-7B/5.4
11	GEORGE N. & REBECCA A. STANSBERRY	4-7B/5.6
12	GARY R. & PAMELA S. TURNER	4-7B/35
13	WILLIAM E. AND JANIS ROGERS	4-8B/2.2
14	GARY R. & PAMELA S. TURNER	4-7B/35.2
15	*CLYDETTE COWGAR	4-7B/35.3
16	JOSEPH C. FRAZIER	4-8B/2.1
17	THELMA R. BAILEY	4-8B/1.3
18	HOWARD E. BAILEY	4-7B/29.2
19	THELMA R. BAILEY	4-8B/8
20	ROBERT G. & ALISA G. GUM	4-7C/30.2
21	ROBERT G. & ALISA G. GUM	4-7C/31
22	ROBERT G. & ALISA G. GUM	4-7C/31.1
23	KEVIN B. & SHERI K. JERDEN	4-8C/1.1
24	KEVIN B. & SHERI K. JERDEN	4-8C/1.4
25	WILLIAM H. TURNER	4-8C/2
26	HENRY A. & PATRICIA E. STRADER	4-8C/6.3
27	LESTER B. & WINIFRED M. BLEVINS	4-8C/6.1
28	LESTER B. & WINIFRED M. BLEVINS	4-8C/6
29	JANICE L. OLDAKER	4-8C/6.2
30	WILLIAM H. TURNER	4-8C/6.4
31	WILLIAM H. TURNER	4-8C/2.1
32	WILLIAM R. & ESTYLEEN KINNEY	4-8C/2.2

\* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

RECEIVED  
Office of Oil and Gas  
  
FEB - 5 2019  
  
WV Department of  
Environmental Protection

**SURFACE HOLE LOCATION (SHL)**  
UTM 17-NAD83  
N:4333542.59  
E:548192.16  
UTM 17-NAD83(FT)  
N:14216974.80  
E:1798527.10  
LAT/LON DATUM-NAD83  
LAT:39.147946  
LON:-80.442294

**APPROX. LANDING POINT**  
UTM 17-NAD83  
N:4333238.98  
E:548163.38  
UTM 17-NAD83(FT)  
N:14216634.90  
E:1798432.70  
LAT/LON DATUM-NAD83  
LAT:39.147014  
LON:-80.442634

**BOTTOM HOLE LOCATION (BHL)**  
UTM 17-NAD83  
N:4330028.19  
E:549344.89  
UTM 17-NAD83(FT)  
N:14206100.82  
E:1802309.02  
LAT/LON DATUM-NAD83  
LAT:39.118016  
LON:-80.429196

	LESSOR	LEASE NO.	DIST-TM/PAR
A	J. B. GUSMAN ET AL	FK020606	20-444/11.2 12-444/21
B	J. K. MUSSER ET UX	FK002243	12-444/29 12-444/31
C	L. D. REED ET AL	FK008530	12-444/31 12-444/31.1
D	ARLICE REED CHURCHILL ET AL	FK062147	12-444/31 12-444/31.1
E	J. Q. MUSSER ET AL	FK002249	4-7B/5.4
F	S. G. HALL ET UX	FK014031	4-7B/5.4 4-7B/5.6 4-7B/35 4-8B/2.2
G	EARL WIMER ET AL	FK064279	4-7B/35.2 4-7B/35.3 4-8B/2.1
H	W. L. RIFFE ET AL	FK064316	4-8B/1.3
J	ALDA V. HITT	FK077958	4-7B/29.2 4-8B/8
K	J. H. BAILEY ET AL	Q102176000	4-7C/30.2
L	ALISA G. GUM	Q102176000	4-7C/31
	LORI LEE CALDWELL	Q102118000	
	GERALD W. RAMSBURG	Q102123000	
	KARRIE DIANE SIMS	Q102112000	
	DENISE C. CARSON	Q102117000	
	KAREN K. HOBBS	Q102122000	
	KATRINA L. WEST	Q102121000	
	DAVID C. GARVIN	Q102119000	
M	KEVIN B. JERDEN ET UX	Q102115000	4-8C/1.1
N	KEVIN B. JERDEN ET UX	Q097844000	4-8C/1.4
O	HUGH RAMSBURG	FK068456	4-8C/2 4-8C/6.3 4-8C/6.1 4-8C/6 4-8C/6.2 4-8C/6.4 4-8C/2.1 4-8C/2.2

JANUARY 25, 2019



API WELL #: 47      33  
STATE      COUNTY      PERMIT

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

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

2) Operator's Well Number: Nays 1209 S-9H Well Pad Name: Nays 1209

3) Farm Name/Surface Owner: Nays / HG Energy II Appalachia Public Road Access: Kincheloe Run Rd/SLS 35

4) Elevation, current ground: 1002' Elevation, proposed post-construction: 1007'

5) Well Type (a) Gas  Oil \_\_\_\_\_ Underground Storage \_\_\_\_\_

Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_

Horizontal  \_\_\_\_\_

*SDW  
1/28/2019*

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus at 6863'/6914' and 51' in thickness. Anticipated pressure at 4314#.

8) Proposed Total Vertical Depth: 6900'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 18,587'

11) Proposed Horizontal Leg Length: 11,229'

12) Approximate Fresh Water Strata Depths: 135', 500'

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

14) Approximate Saltwater Depths: None noted in offsets

15) Approximate Coal Seam Depths: 660' to 665'

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: \_\_\_\_\_

RECEIVED  
Office of Oil and Gas

FEB - 5 2019

WV Department of  
Environmental Protection

03/29/2019

WW-6B  
(04/15)

API NO. 47- \_\_\_\_\_  
 OPERATOR WELL NO. Nays 1209 S-9H  
 Well Pad Name: Nays 1209

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	100'	100'	Drilled In
Fresh Water	20"	NEW	J-55	94	600'	600'	40% excess yield = 1.20, CTS
Coal	13 3/8"	NEW	J-55	68	1735'	1735'	40% excess yield = 1.20, CTS
Intermediate	9 5/8"	NEW	J-55	40	2500'	2500'	40% excess yield Load 0% Excess Yield
Production	5 1/2"	NEW	P-110	23	18587'	18587'	20% excess yield = 1.15, tail yield = 1.50
Tubing							
Liners							

*Saw*  
*2/1/2019*

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				CTS
Fresh Water	20"	24"	.438	2110	1200	Type 1, Class A	30 % excess yield = 1.20, CTS
Coal	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	40% excess yield = 1.20, CTS
Intermediate	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	40% excess yield = 0% Excess Load
Production	5 1/2"	8 1/2"	.415	14520	12500	Type 1/Class A	20% excess yield = 1.15, tail yield = 1.50
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

RECEIVED  
Office of Oil and Gas

FEB 5 2019

WV Department of  
Environmental Protection

WW-6B  
(10/14)

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 6900 feet. Drill horizontal leg to estimated 11,229 TMD, 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.

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): 16.148 acres

22) Area to be disturbed for well pad only, less access road (acres): 10.834 acres

23) Describe centralizer placement for each casing string:

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

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

Conductor - N/A, Casing to be drilled in w/ Dual Rotary Rig.  
Fresh Water - 15.6 ppg PNE-1 + 3% bwoc CaCl<sub>2</sub>, 40% Excess Yield = 1.20, CTS  
Coal - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub>, 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub> zero% Excess, CTS  
Intermediate - Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl<sub>2</sub>, 40% Excess, Tail: 15.9 ppg, PNE-1 + 2.5% bwoc CaCl<sub>2</sub> 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 MPA17020% Excess/Lead Yield=1.19/Tail Yield=1.94, CTS

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.  
Fresh Water - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.  
Coal - Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.  
Intermediate - 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.

RECEIVED  
Office of Oil and Gas

FEB 5 2019

WV Department of  
Environmental Protection

\*Note: Attach additional sheets as needed.



**1209 S-9H  
Marcellus Shale Horizontal  
Harrison County, WV**

				<b>1209 S-9H SHL</b>				<b>237363.97N 1732703.69E</b>		
<b>Ground Elevation</b>	<b>1007'</b>			<b>1209 S-9H LP</b>				<b>237025.57N 1732603.61E</b>		
<b>Azm</b>	<b>160.751°</b>			<b>1209 S-9H BHL</b>				<b>226424.7N 1736305.34E</b>		

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	30"	30" 157.5# LS	Conductor	0	100	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	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
			Fresh Water	0	600					
	17.5"	13-3/8" 68# J-55 BTC	Kittaning Coal	660	665	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 ECP 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
			Little/Big Lime	1126 / 1167	1151 / 1243					
			Injun / Gantz (Storage)	1243 / 1535	1349 / 1585					
			Intermediate 1	0	1735					
	12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1650 / 1730	1697 / 1742	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	1785 / 1850	1850 / 1940					
			5th Sand	2035	2070					
			Bayard Sand	2125	2160					
	8.5" Vertical	5-1/2" 23# P-110 HC CDC HTQ	Speechley	2745	2763	9.0ppg SOBM	<b>Lead:</b> 14.5 ppg POZ:PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170 <b>Tail:</b> 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=14520 psi Note:Actual centralizer schedules may be changed due to hole conditions
			Balltown	2965	3005					
			Benson	4050	4083					
	8.5" Curve		Rhinestreet	5865	6140	11.5ppg-12.5ppg SOBM		Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.		
Cashaqua			6140	6341						
Middlesex			6341	6421						
West River			6421	6514						
Burkett			6514	6540						
Tully Limestone			6540	6644						
Hamilton			6644	6863						
8.5" Lateral	Marcellus	6863	6914	11.5ppg-12.5ppg SOBM	Run 1 spiral centralizer every 3 joints from the 1st 5.5" long joint to the top of the curve.					
	TMD / TVD (Production)	18587	6900							
			Onondaga	6914						

LP @ 6900' TVD / 7358' MD      8.5" Hole - Cemented Long String      +/-11229' ft Lateral      TD @ +/-6900' TVD +/-18587' MD

X=centralizers

# HG ENERGY

Location: Harrison County, WV  
 Field: Harrison (NAD27 SP Northern Zone 4701)  
 Facility: 1209 Pad

Slot: Slot #09  
 Well: 1209 S-9H  
 Wellbore: 1209 S-9H PWB

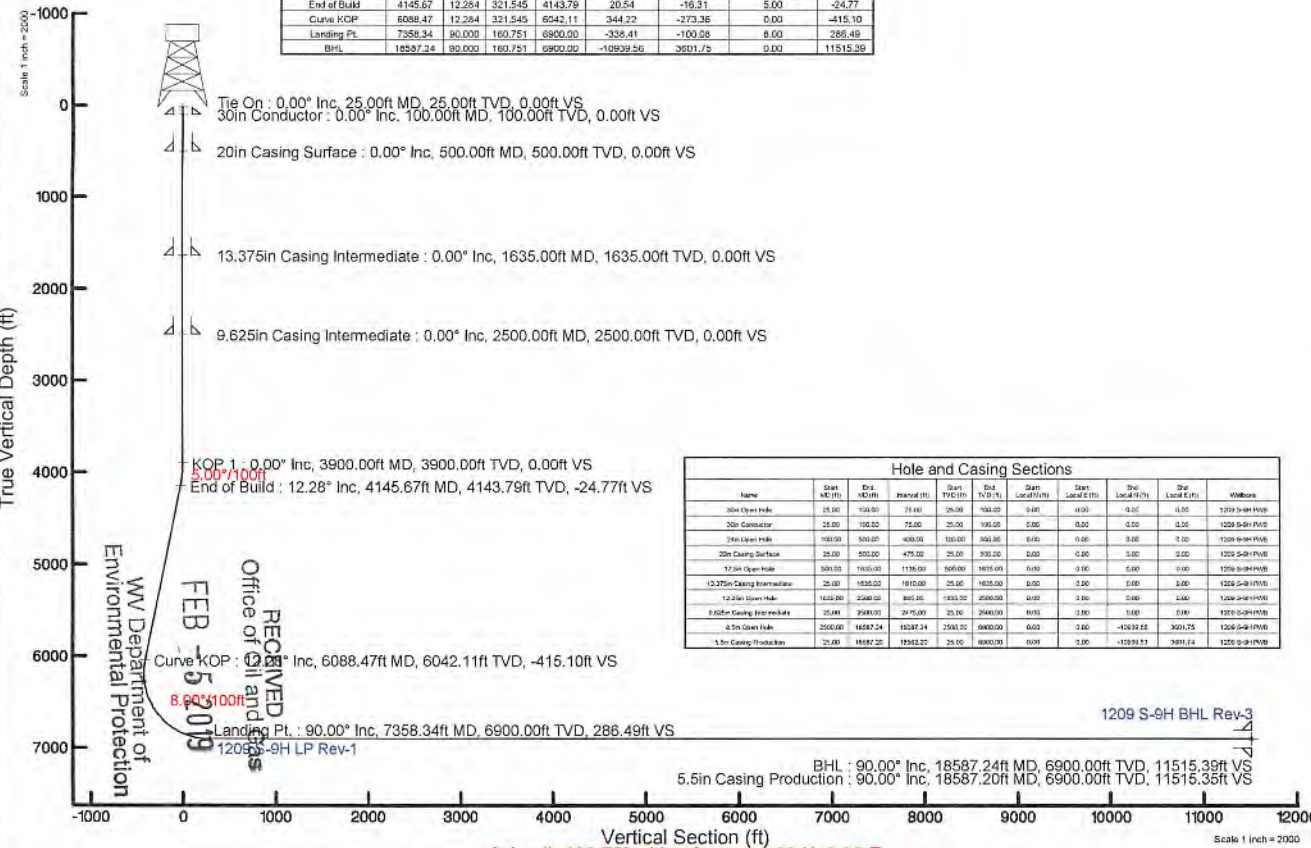
PHI reference Wellbore is 1209 S-9H PWB Ex-01	Grid System: NAD27 (Lambert West Virginia SP, Northern Zone 4701), US feet
True vertical depth was referenced to Patterson 347 (RKB)	North Reference: Grid North
Measured depths are referenced to Patterson 347 (RKB)	Scale: True distance
Patterson 347 (RKB) to Mean Sea Level: 1032 feet	Date: see next
Mean Sea Level to Mud line (At Slot: Slot #09): +1007 feet	Created by: Delmarion 2018-01-15
COORDINATE are in North-South-East-West	Display: W, N, E, Easting, US, Feet

Location Information					
Facility Name:	Grid East (US ft):	Grid North (US ft):	Latitude:	Longitude:	
1209 Pad	1732374.000	237349.950	39°06'52.102"N	80°26'37.112"W	
Slot	Local N (ft):	Local E (ft):	Grid North (US ft):	Grid East (US ft):	Latitude
Slot #09	14.02	323.70	1732373.690	237363.970	39°06'52.274"N
Patterson 347 (RKB) to Mud line (At Slot: Slot #09)	25ft				
Mean Sea Level to Mud line (At Slot: Slot #09)	-1007ft				
Patterson 347 (RKB) to Mean Sea Level	1032ft				

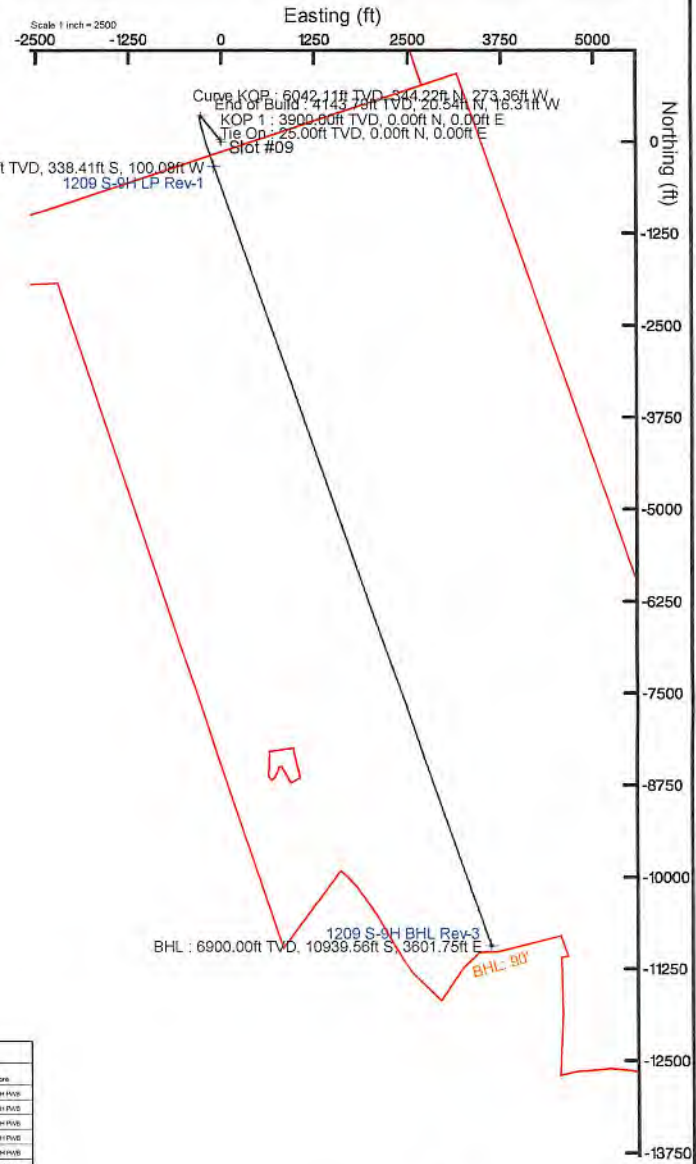
Survey Program					
Start MD (ft):	End MD (ft):	Total	Method	Log Name/Current	Wellbore
25.00	2501.00	2476.00	RTK/Levelling (grid north/true north)		1209 S-9H PWB
2000.00	1557.24	4557.24	RTK/Levelling Curve		1209 S-9H PWB

Targets						
Name	MD (ft)	TV (ft)	Local N (ft)	Local E (ft)	Grid North (US ft)	Longitude
1209 S-9H LP Rev-1	1857.24	6900.00	-336.41	1109.08	1732373.61	80°26'37.112"W
1209 S-9H Rev-1	7358.34	6900.00	-336.41	-109.08	1732373.61	80°26'37.112"W

Well Profile Data									
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (100ft)	VS (ft)	
Tie On	25.00	0.00°	321.545	25.00	0.00	0.00	0.00	0.00	
KOP 1	3900.00	0.00°	321.545	3900.00	0.00	0.00	0.00	0.00	
End of Build	-1145.67	12.284	321.545	-1143.79	20.54	-16.31	5.00	-24.77	
Curve KOP	6088.47	12.284	321.545	6042.11	-344.22	-273.36	0.00	-415.10	
Landing Pt.	7358.34	90.000	160.751	6900.00	-336.41	-109.08	8.00	286.49	
BHL	1857.24	90.000	160.751	6900.00	-10939.56	3801.75	0.00	11515.39	



Hole and Casing Sections										
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TV (ft)	End TV (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
30in Open Hole	25.00	100.00	75.00	25.00	100.00	0.00	0.00	0.00	0.00	1209 S-9H PWB
30in Conductor	25.00	100.00	75.00	25.00	100.00	0.00	0.00	0.00	0.00	1209 S-9H PWB
13.375in Casing Intermediate	1000.00	1635.00	635.00	1000.00	1635.00	0.00	0.00	0.00	0.00	1209 S-9H PWB
9.625in Casing Intermediate	25.00	2500.00	2475.00	25.00	2500.00	0.00	0.00	0.00	0.00	1209 S-9H PWB
5.5in Casing Production	5000.00	6900.00	1900.00	5000.00	6900.00	0.00	0.00	0.00	0.00	1209 S-9H PWB



BGGM (1900.0 to 2020.0) Dip: 66.20° Dip: 51867.2 nT  
 Magnetic North is 8.78 degrees West of True North (at 10/8/2018)  
 Grid North is 0.60 degrees West of True North  
 To correct azimuth from True to Grid add 0.60 degrees  
 To correct azimuth from Magnetic to Grid subtract 8.18 degrees



**Nays 1209 Well Pad (N-1H to N-6H, S-7H to S-12H)**  
**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			
			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																			
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									
Ingredient name	%	CAS number																			
bentonite	90 - 100	1302-78-9																			
Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
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												
Ingredient name	%	CAS number																			
Calcium chloride	90 - 100	10043-52-4																			
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														
Ingredient name	%	CAS number																			
No hazardous ingredient																					
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>126-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8												
Ingredient name	%	CAS number																			
Tributyl phosphate	90 - 100	126-73-8																			
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												
Ingredient name	%	CAS number																			
Sucrose	90 - 100	57-50-1																			
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												
Ingredient name	%	CAS number																			
Calcium magnesium oxide	90 - 100	37247-91-9																			
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														
Ingredient name	%	CAS number																			
No hazardous ingredient																					
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									
Ingredient name	%	CAS number																			
Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
Calcium oxide	1 - 5	1305-78-8																			
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												
Ingredient name	%	CAS number																			
Organic acid salt	40 - 50	Trade secret																			
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>Trade secret</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	Trade secret	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
Ingredient name	%	CAS number																			
2-Butoxyethanol	20 - 30	Trade secret																			
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																			

RECEIVED  
 Office of Oil and Gas  
 FEB - 5 2019  
 WV Department of Environmental Protection

WW-9  
(4/16)

4703305949 03/29/2019

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Nays 1209 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) West Fork 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 \_\_\_\_\_ )

*SOW*  
*1/28/2019*

Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected in a closed loop drilling 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. Air, Freshwater and SOB M

-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 List

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.

Company Official Signature *Diane White*

Company Official (Typed Name) Diane White

Company Official Title Agent

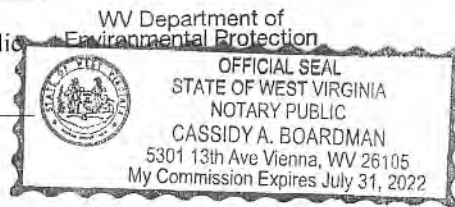
RECEIVED  
Office of Oil and Gas

FEB - 5 2019

Subscribed and sworn before me this 23rd day of January, 2019

*Cassidy A. Boardman* Notary Public

My commission expires 7/31/2022



HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 16.148 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.

Title: Harrison County DEP Oil & Gas Inspector

Date: 1/28/2019

RECEIVED Office of Oil and Gas

FEB 5 2019

Field Reviewed? (X) Yes ( ) No

WV Department of Environmental Protection

## Cuttings Disposal/Site Water

### Cuttings -Haul off Company:

Eap Industries, Inc. DOT # QR76278  
1875 Smith Two State Rd. Atlasburg, PA 15004  
1-888-294-5227

03/29/2019

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

Environmental Coordination Services & Recycling (ECS&R)  
8287 US Highway 18  
Cochranston, PA 16314  
814-425-7778

### Disposal Locations:

Apex Environmental, LLC Permit # 06-08488  
11 County Road 78  
Amsterdam, OH 43908  
740-548-4889

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  
304-562-2511

Max Environmental Technologies, Inc. Facility Permit # PAD004895146 / 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 # 100553  
1801 Park Side Drive  
Elizabeth, PA 15037  
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100582  
3100 Hill Road  
Liberty, 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  
304-748-0014

RECEIVED  
Office of Oil and Gas

FEB 5 2019

WV Department of  
Environmental Protection

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185  
Rt 1 Box 156A  
New Martinsville, WV 26035  
804-455-3800

03/29/2019

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

Energy Solutions Services, Inc. Permit # R-75006-L24  
1560 Bear Creek Road  
Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MID020906814  
8947 US 131 North, PO Box 1030  
Kalkaska, MI 49646  
231-258-9961

**Water Haul off Companies:**

Dynamic Structures, Clear Creek DOT # 720485  
8790 State Route 7  
New Waterford, OH 44445  
330-892-0184

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

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

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

Select Energy Services, LLC  
PO Box 208997  
Dallas, TX 75320-8997

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

Nuverra Environmental Solutions  
11942 Veterans Memorial Highway  
Masontown, WV 26542

Equipment Transport  
1 Tyler Court  
Carlisle, PA 17015

Mustang Oilfield Services LLC  
PO Box 789  
St. Clairsville, OH 43950

Myers Well Service, .....  
2001 Ballpark Court  
Export, PA 15632

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

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

**Disposal Locations:**

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

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

Solidification/Incineration  
Soil Remediation, Inc. Permit # 02-20753  
6065 Arrel-Smith Road  
Lowelville, OH 44436  
330-586-6825

Grosella (SWIW #34)  
Permit # 4096  
Rt. 88  
Garrattsville, OH  
713-278-4816

Adams #1 (Buckeye Brine, LLC)  
Permit # 34-031-2-7177  
28986 Airport Road  
Coshocton, OH 43812  
740-575-4484  
512-478-6545

Kambla 1-D Well  
Permit # 8780  
7675 East Pike  
Norwich, Oh 43767  
614-648-8898  
740-786-6495

RECEIVED  
Office of Oil and Gas

FEB - 5 2019

WV Department of  
Environmental Protection

Adams #2 (Buckeye Brine, LLC)  
2205 Westover Road  
Austin Tx 78708  
Permit # 84-081-2-7178  
740-575-4484  
512-478-6545

Adams #3 (Buckeye Brine, LLC)  
Permit # 84-081-2-7241-00-00  
2680 Exposition, Suite 117  
Austin, TX 78703  
512-478-6545

Mozana #1 Well (SWIW # 13)  
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  
Coraopolis, PA 15108  
412-829-7275

SOS D#1 (SWIW #12)  
Permit # 84-059-2-4202-00-00  
Silcor Oilfield Services, Inc.  
2999 Hubbard Road  
Youngstown, PA 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 Barnesville 1 & 2  
CNX Gas Company, LLC  
1000 Consol Energy Drive  
Permit # 84-013-2-0609-00-00  
Permit # 84-013-2-0614-00-00  
304-823-6568

US Steele 11385  
Permit # 47-001-00561  
200 Evergreen Drive  
Waynesburg, PA 15730  
304-823-6568

Chapin #7 UIC (SWIW #7)  
Permit # 84-083-2-4187-00-00  
Elkhead Gas & Oil Company  
12163 Marne Rd. NE  
Newark, OH 43055  
740-763-3966

03/29/2019

RECEIVED  
Office of Oil and Gas

FEB 5 2019

WV Department of  
Environmental Protection

# HG Energy II Appalachia, LLC

## Site Safety Plan

1209 Unit Well Pad  
327 Gooseman Rd Jane Lew  
Harrison County, WV 26378

May 2018: Version 2

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

*Saw*  
*1/28/2019*

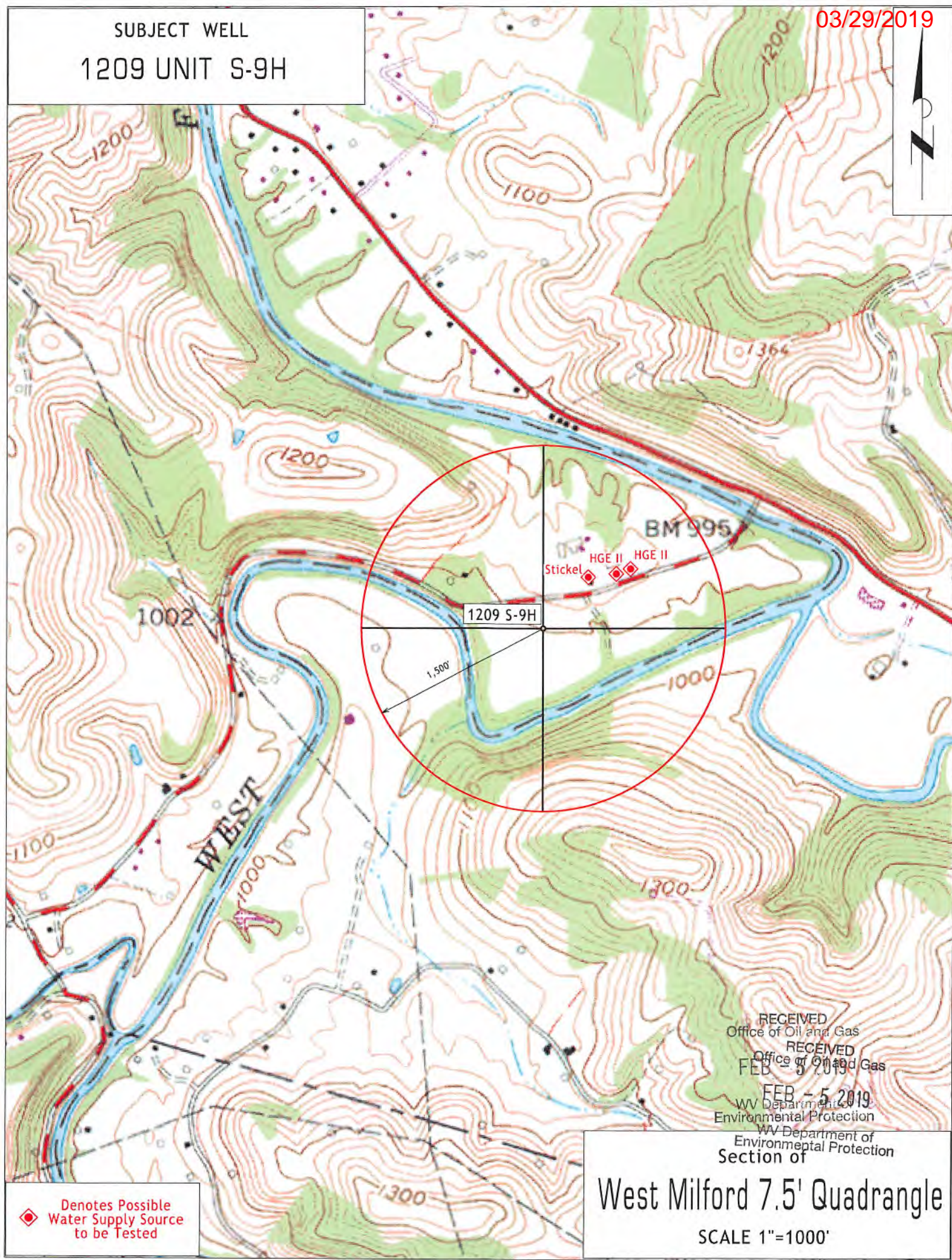
RECEIVED  
Office of Oil and Gas

FEB - 5 2019

WV Department of  
Environmental Protection

SUBJECT WELL  
1209 UNIT S-9H

03/29/2019



RECEIVED  
Office of Oil and Gas  
RECEIVED  
Office of Oil and Gas  
FEB 9 2019  
FEB - 5 2019  
WV Department of  
Environmental Protection  
WV Department of  
Environmental Protection  
Section of

West Milford 7.5' Quadrangle

SCALE 1"=1000'

◆ Denotes Possible  
Water Supply Source  
to be Tested



# HG ENERGY

Location: Harrison County, WV  
 Field: Harrison (NAD27 SP Northern Zone 4701)  
 Facility: 1209 Pad  
 Slot: Slot #07  
 Well: 1209 S-7H  
 Wellbore: 1209 S-7H PWS

Grid conversion method is 1209 S-7H PWS Ex-01  
 Grid System: NAD27 / Lambert West Virginia SP, Northern Zone (4701), US In-4  
 True vertical depth was referenced to Paterson 347 (RKB)  
 North Reference: Enclench  
 Reference datum was referenced to Paterson 347 (RKB)  
 2000 True Offsets  
 Paterson 347 (RKB) Mean Sea Level: 933 feet  
 Depth was in feet  
 Mean Sea Level to Mud line (RKB) Slot 005: -1007 feet  
 Created by: G. Kistler on 2/18/15  
 Coordinates are in feet, referenced to GCS

## Location Information

Facility Name	Grid East (US B)	Grid North (US B)	Latitude	Longitude		
1209 Pad	1732524.000	237349.950	39°08'52.102"N	80°28'37.112"W		
Slot Name	Local N (ft)	Local E (ft)	Grid East (US B)	Grid North (US B)	Latitude	Longitude
Slot #07	44.25	328.80	1732702.550	237354.200	39°08'52.573"N	80°28'33.947"W
Slot #01	0.00	0.00	1732524.000	237349.950	39°08'52.102"N	80°28'37.112"W
Slot #02	15.00	-0.45	1732373.550	237364.970	39°08'52.256"N	80°28'37.119"W
Slot #03	29.93	-1.11	1732372.890	237379.880	39°08'52.387"N	80°28'37.130"W
Slot #04	74.79	-3.15	1732370.840	237424.740	39°08'52.647"N	80°28'37.162"W
Slot #05	59.77	-2.51	1732371.490	237409.720	39°08'52.692"N	80°28'37.152"W
Slot #06	44.85	-1.78	1732372.240	237394.800	39°08'52.747"N	80°28'37.142"W
Slot #08	23.33	329.35	1732703.340	237379.280	39°08'52.428"N	80°28'32.933"W
Slot #09	14.02	329.70	1732703.690	237393.970	39°08'52.374"N	80°28'32.929"W
Slot #10	59.27	327.95	1732701.940	237408.220	39°08'52.721"N	80°28'32.697"W
Slot #11	74.19	327.20	1732701.190	237424.140	39°08'52.869"N	80°28'32.689"W
Slot #12	89.11	326.55	1732700.540	237439.060	39°08'53.016"N	80°28'32.679"W

Paterson 347 (RKB) to Mud line (Facility - 1209 Pad)  
 Mean Sea Level to Mud line (Facility - 1209 Pad)

Facility Name	Grid East (US B)	Grid North (US B)	Latitude	Longitude
KST3 Pad	1724265.200	245700.800	39°10'13.797"N	80°28'23.720"W

Slot Name	Local N (ft)	Local E (ft)	Grid East (US B)	Grid North (US B)	Latitude	Longitude
Slot #01	75.60	25.60	1724090.600	245775.400	39°10'14.512"N	80°28'23.405"W

Comment: KST3SHS  
 Slot #04: 19.07, 8.40, 1724071.600, 245719.600, 39°10'13.549"N, 80°28'23.641"W  
 Comment: KST3CHS  
 Slot #05: 56.90, 18.20, 1724084.400, 245757.500, 39°10'14.325"N, 80°28'23.484"W  
 Comment: KST3SHS

Paterson 347 (RKB) to Mud line (Facility - KST3 Pad)  
 Mean Sea Level to Mud line (Facility - KST3 Pad)  
 Paterson 347 (RKB) to Mean Sea Level

## Well Data

Slot	Well	Wellbore	Wellbore
Slot #01	1209 N-1H	1209 N-1H PWS	1209 N-1H PWP Ex-01
Slot #01	KST3AHS S101	KST3AHS S101 AWB	KST3AHS S101 AWP Prod: 14211'
Slot #02	1209 N-2H	1209 N-2H PWS	1209 N-2H PWP Ex-01
Slot #03	1209 N-3H	1209 N-3H PWS	1209 N-3H PWP Ex-01
Slot #04	1209 N-4H	1209 N-4H PWS	1209 N-4H PWP Ex-03
Slot #04	KST3DHS	KST3DHS S101 AWB	KST3DHS S101 AWP Prod: 18208'
Slot #05	1209 N-5H	1209 N-5H PWS	1209 N-5H PWP Ex-01
Slot #05	KST3EHS	KST3EHS AWB	KST3EHS AWP Prod: 17540'
Slot #06	1209 N-6H	1209 N-6H PWS	1209 N-6H PWP Ex-01
Slot #07	1209 S-7H	1209 S-7H PWS	1209 S-7H PWP Ex-01
Slot #08	1209 S-8H	1209 S-8H PWS	1209 S-8H PWP Ex-01
Slot #09	1209 S-9H	1209 S-9H PWS	1209 S-9H PWP Ex-01
Slot #10	1209 S-10H	1209 S-10H PWS	1209 S-10H PWP Ex-01
Slot #11	1209 S-11H	1209 S-11H PWS	1209 S-11H PWP Ex-03
Slot #12	1209 S-12H	1209 S-12H PWS	1209 S-12H PWP Ex-03



©2015 GE Energy Services LLC. All rights reserved. This document is the property of GE Energy Services LLC. It is not to be distributed, copied, or reproduced in any form without the prior written permission of GE Energy Services LLC.



RECEIVED  
 Office of Oil and Gas  
 FEB - 5 2019  
 WV Department of  
 Environmental Protection

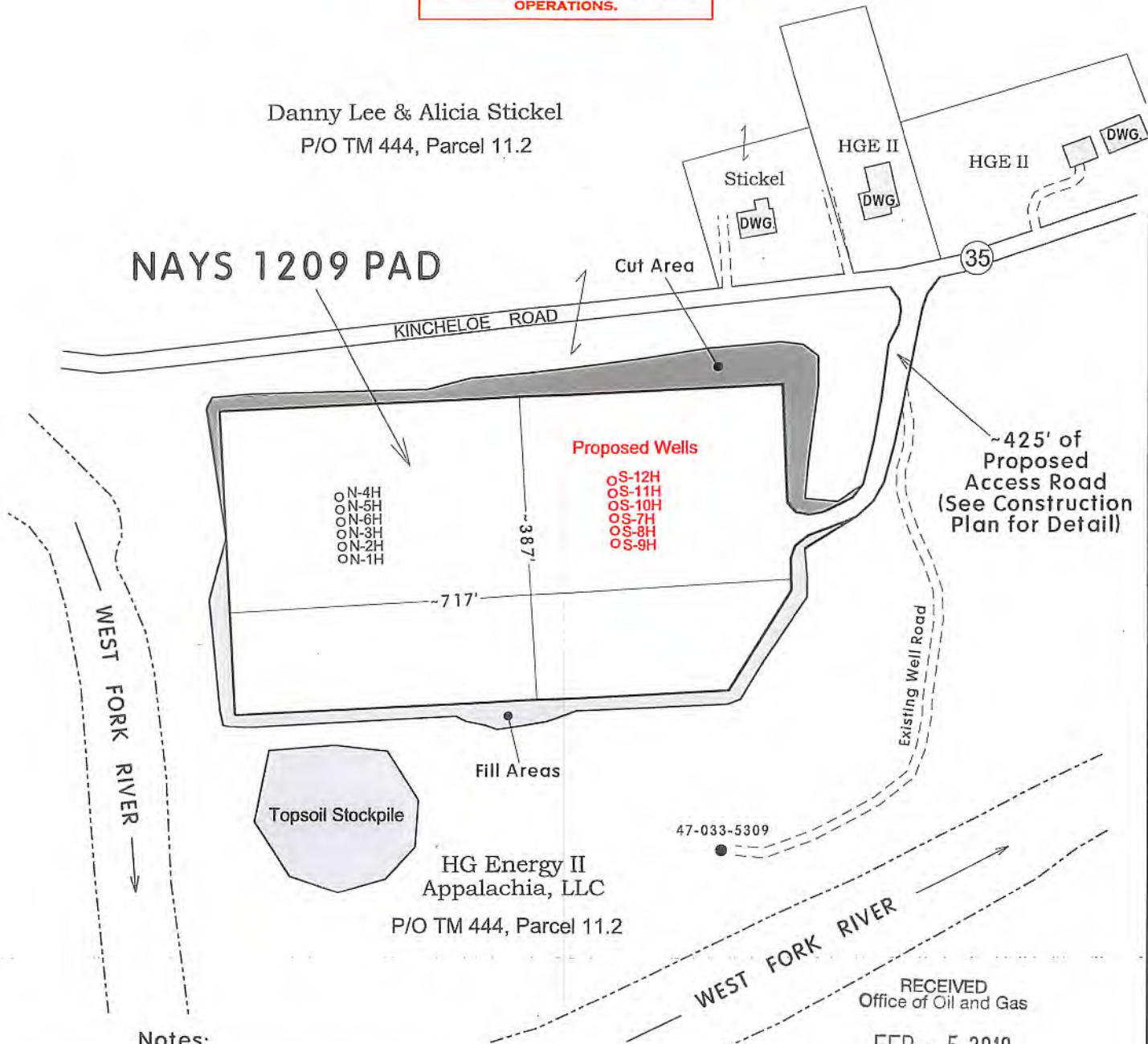
# Reclamation Plan For: NAYS 1209 PAD

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



Danny Lee & Alicia Stickel  
P/O TM 444, Parcel 11.2

## NAYS 1209 PAD



**Notes:**

- REQUESTED PERMIT IS FOR DRILLING NEW HORIZONTAL WELL.
- 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.

RECEIVED  
Office of Oil and Gas

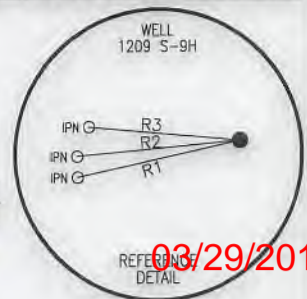
FEB - 5 2019

WV Department of  
Environmental Protection

BHL is located on topo map 2,544 feet south of Latitude: 39° 07' 30"  
 SHL is located on topo map 6,818 feet south of Latitude: 39° 10' 00"

BHL is located on topo map 3,555 feet west of Longitude: 80° 25' 00"  
 SHL is located on topo map 7,268 feet west of Longitude: 80° 25' 00"

SEE PAGE 2 FOR SURFACE OWNERS & LESSORS



- NOTES:
- There are no water wells or developed springs within 250' of proposed well.
  - There are no existing buildings within 625' of proposed well.
  - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
  - There are no native trout streams within 300' of proposed well.
  - Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
  - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LINE	BEARING	DISTANCE
R1	S 77°19'25" W	243.03'
R2	S 84°26'48" W	238.89'
R3	N 85°04'17" W	221.02'
R4	N 06°10'49" W	1678.24'
R5	N 36°25'12" E	654.54'
R6	N 77°23'30" E	2469.41'

**LEGEND**

- ⊕ - TOPO MAP POINT
- ☼ - WELL
- - ALL ARE POINTS UNLESS OTHERWISE NOTED.
- - - MINERAL TRACT BOUNDARY
- - LESSORS
- ① - SURFACE OWNERS
- - - PARCEL LINES
- - - LEASE BOUNDARY
- - - WELL REFERENCE
- - - PROPOSED HORIZONTAL WELL
- - - ROAD
- - - STREAM CENTER LINE
- - - DETAIL

**WELLS WITHIN 2400'**

- - EXISTING WELLS
- ⊕ - PLUGGED WELLS
- ⊕ - ABANDONED WELLS

**SURFACE HOLE LOCATION (SHL)**  
 UTM 17-NAD83  
 N:4333342.59  
 E:548192.16  
 UTM 17-NAD83(FT)  
 N:14216974.80  
 E:1798527.10  
 LAT/LON DATUM-NAD83  
 LAT:39.147946  
 LON:-80.442294

**BOTTOM HOLE LOCATION (BHL)**  
 UTM 17-NAD83  
 N:4330028.19  
 E:549344.89  
 UTM 17-NAD83(FT)  
 N:14206100.82  
 E:1802309.02  
 LAT/LON DATUM-NAD83  
 LAT:39.118016  
 LON:-80.429196

**APPROX. LANDING POINT**  
 UTM 17-NAD83  
 N:4333238.98  
 E:548163.38  
 UTM 17-NAD83(FT)  
 N:14216634.90  
 E:1798432.70  
 LAT/LON DATUM-NAD83  
 LAT:39.147014  
 LON:-80.442634

**Blue Mountain**  
 11023 MASON DIXON HIGHWAY  
 BURTON, WV 26562  
 PHONE: (304) 662-6486

FILE #: 1209 S-9H  
 DRAWING #: 1209 S-9H  
 SCALE: 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY: 1/2500  
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*  
 R.P.E.: \_\_\_\_\_ L.L.S.: P.S. No. 2000

**GEORGE D. SIX**  
 LICENSED  
 No. 2000  
 STATE OF  
 WEST VIRGINIA  
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

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

OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304

DATE: JANUARY 25, 2019  
 OPERATOR'S WELL #: 1209 S-9H  
 API WELL #: 47 33 05945  
 STATE COUNTY PERMIT

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

WATERSHED: MIDDLE WEST FORK CREEK ELEVATION: 1,007'±  
 COUNTY/DISTRICT: HARRISON / UNION QUADRANGLE: WEST MILFORD, WV 7.5'  
 SURFACE OWNER: HG ENERGY II APPALACHIA, LLC ACREAGE: 95.06±  
 OIL & GAS ROYALTY OWNER: ANN COVINGTON, ET AL ACREAGE: 483.766±

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,900'± TMD: 16,676'±  
 WELL OPERATOR HG ENERGY II APPALACHIA, LLC DESIGNATED AGENT DIANE C. WHITE  
 Address 5260 DUPONT ROAD Address 5260 DUPONT ROAD  
 City PARKERSBURG State WV Zip Code 26101 City PARKERSBURG State WV Zip Code 26101



# 1209 S-9H

## PAGE 2 OF 2

03/29/2019

	SURFACE OWNER	DIST-TM/PAR
1	DANNY LEE & ALICIA A. STICKEL	P/O 20-444/11.2
1A	HG ENERGY II APPALACHIA, LLC	P/O 20-444/11.2
2	HG ENERGY II APPALACHIA, LLC	20-444/11.3
3	AARON C. & CHRISTINA P. MEDINA	20-444/11
4	HG ENERGY II APPALACHIA, LLC	20-444/11.1
5	ERIC K. & SUSIE G. DECKER	12-444/21
6	ERIC K. & SUSIE G. DECKER	12-444/21.2
7	ROBERT D. & GEORGANNA STARKEY	12-444/29
8	MICHELLE HOPE DENNISON	12-444/31
9	MICHELLE HOPE DENNISON	12-444/31.1
10	WILLARD H. & JUDITH D. MCWHORTER	4-7B/5.4
11	GEORGE N. & REBECCA A. STANSBERRY	4-7B/5.6
12	GARY R. & PAMELA S. TURNER	4-7B/35
13	WILLIAM E. AND JANIS ROGERS	4-8B/2.2
14	GARY R. & PAMELA S. TURNER	4-7B/35.2
15	*CLYDETTE COWGAR	4-7B/35.3
16	JOSEPH C. FRAZIER	4-8B/2.1
17	THELMA R. BAILEY	4-8B/1.3
18	HOWARD E. BAILEY	4-7B/29.2
19	THELMA R. BAILEY	4-8B/8
20	ROBERT G. & ALISA G. GUM	4-7C/30.2
21	ROBERT G. & ALISA G. GUM	4-7C/31
22	ROBERT G. & ALISA G. GUM	4-7C/31.1
23	KEVIN B. & SHERI K. JERDEN	4-8C/1.1
24	KEVIN B. & SHERI K. JERDEN	4-8C/1.4
25	WILLIAM H. TURNER	4-8C/2
26	HENRY A. & PATRICIA E. STRADER	4-8C/6.3
27	LESTER B. & WINIFRED M. BLEVINS	4-8C/6.1
28	LESTER B. & WINIFRED M. BLEVINS	4-8C/6
29	JANICE L. OLDAKER	4-8C/6.2
30	WILLIAM H. TURNER	4-8C/6.4
31	WILLIAM H. TURNER	4-8C/2.1
32	WILLIAM R. & ESTYLEEN KINNEY	4-8C/2.2

\* - DENOTES PARCEL WITHIN 30 FEET OF PLANNED WELL BORE

SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83
N:4333342.59
E:548192.16
UTM 17-NAD83(FT)
N:14216974.80
E:1798527.10
LAT/LON DATUM-NAD83
LAT:39.147946
LON:-80.442294

APPROX. LANDING POINT
UTM 17-NAD83
N:433238.98
E:548163.38
UTM 17-NAD83(FT)
N:14216634.90
E:1798432.70
LAT/LON DATUM-NAD83
LAT:39.147014
LON:-80.442634

BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83
N:4330028.19
E:549344.89
UTM 17-NAD83(FT)
N:14206100.82
E:1802309.02
LAT/LON DATUM-NAD83
LAT:39.118016
LON:-80.429196

	LESSOR	LEASE NO.	DIST-TM/PAR
A	J. B. GUSMAN ET AL	FK020606	20-444/11.2
			12-444/21
B	J. K. MUSSER ET UX	FK002243	12-444/29
			12-444/31
C	L. D. REED ET AL	FK008530	12-444/31
			12-444/31.1
D	ARLICE REED CHURCHILL ET AL	FK062147	12-444/31
			12-444/31.1
E	J. Q. MUSSER ET AL	FK002249	4-7B/5.4
F	S. G. HALL ET UX	FK014031	4-7B/5.4
			4-7B/5.6
			4-7B/35
			4-8B/2.2
G	EARL WIMER ET AL	FK064279	4-7B/35.2
			4-7B/35.3
			4-8B/2.1
H	W. L. RIFFE ET AL	FK064316	4-8B/1.3
J	ALDA V. HITT	FK077958	4-7B/29.2
			4-8B/8
K	J. H. BAILEY ET AL	Q102176000	4-7C/30.2
L	ALISA G. GUM	Q102176000	4-7C/31
	LORI LEE CALDWELL	Q102118000	
	GERALD W. RAMSBURG	Q102123000	
	KARRIE DIANE SIMS	Q102112000	
	DENISE C. CARSON	Q102117000	
	KAREN K. HOBBS	Q102122000	
	KATRINA L. WEST	Q102121000	
	DAVID C. GARVIN	Q102119000	
M	KEVIN B. JERDEN ET UX	Q102115000	4-8C/1.1
N	KEVIN B. JERDEN ET UX	Q097844000	4-8C/1.4
O	HUGH RAMSBURG	FK068456	4-8C/2
			4-8C/6.3
			4-8C/6.1
			4-8C/6
			4-8C/6.2
			4-8C/6.4
			4-8C/2.1
			4-8C/2.2

**JANUARY 25, 2019**



API WELL #: 47      33  
 STATE      COUNTY      PERMIT

WW-6A1  
(5/13)

Operator's Well No. Nays 1209 S-9H

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

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

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

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

"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

RECEIVED  
Office of Oil and Gas  
  
FEB - 5 2019  
  
WV Department of  
Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

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

HG Energy II Appalachia, LLC 1209S-9H LEASE CHAIN

TRACT #	LEGACY LEASE NUMBER	TAX MAP	LEASE NUMBER	GRANTOR/LESSOR	GRANTEE/LESSEE	ROYALTY	DEED BOOK	PAGE				
A	FK020606	17-20-0444-0011-0000, 17-20-0444-0011-0001, 17-20-0444-0011-0002, 17-20-0444-0011-0003, 17-20-0444-0012-0000, 17-12-0444-0013-0000, 17-12-0444-0014-0000, 17-12-0444-0021-0000, 17-12-0444-0021-0001, 17-12-0444-0022-0000, 17-12-0445-0001-0000, 17-12-0445-0002-0000, 17-12-0445-0009-0000, 17-12-0445-0010-0000, 17-12-0445-0011-0000	Q100370000	J.B. GUSMAN AND ADALINE GUSMAN	TREAT AND CRAWFORD	NOT LESS THAN 1/8	158	8				
				TREAT AND CRAWFORD	UNITED FUEL GAS COMPANY	ASSIGNMENT	226	359				
				UNITED FUEL GAS COMPANY	FAYETTE COUNTY GAS COMPANY	ASSIGNMENT	UNRECORDED					
				FAYETTE COUNTY GAS COMPANY	HOPE NATURAL GAS	ASSIGNMENT	201	3				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY COMPANY	MERGER/NAME CHANGE	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.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	1409	680				
				DOMINION TRANSMISSION, INC.	DOMINION EXPLORATION & PRODUCTION, INC.	ASSIGNMENT	1442	356				
				DOMINION EXPLORATION & PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	1457	978				
				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				
				B	FK002243	p/o 17-20-0444-0026-0000, 17-20-0444-0027-0000, 17-20-0444-0027-0001, 17-20-0444-0027-0002, 17-20-0444-0027-0003, 17-20-0444-0028-0000, 17-20-0444-0028-0001, 17-20-0444-0028-0002, 17-20-0444-0028-0003, 17-20-0444-0029-0000, 17-20-0444-0029-0001	Q100651000	J.K. MUSSER AND LAURA R. MUSSER, HIS WIFE	F.E. WILLIAMSON AND COMPANY	NOT LESS THAN 1/8	111	519
								F.E. WILLIAMSON AND COMPANY	THE CARTER OIL COMPANY	ASSIGNMENT	118	428
THE CARTER OIL COMPANY	SOUTH PENN OIL COMPANY	ASSIGNMENT	128					262				
SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	240					210				
THE CARTER OIL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	203					73				
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	903					179				
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136					250				
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51					795				
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58					362				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522					33				
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					660				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600					692				
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601					581				
		17-12-0444-0041-0000,	Q100257000					L.D. REED AND MARY A. REED	F.E. WILLIAMSON AND CO.	NOT LESS THAN 1/8	111	518
								HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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	795				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC	MEMORANDUM FARMOUT AGREEMENT	1522	795				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC	AMENDMENT TO FARMOUT AGREEMENT	1524	795				

1209S LEASE CHAIN

C	FK008530	p/o 17-12-0444-0031-0000, p/o 17-12-0444-0040-0000	Q100937000 TITLE 253395000	CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	795
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584	795
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	795
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	795
				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
D	FK062147	p/o 17-12-0444-0031-0000, 12-0444-0041-0000	Q100937000 TITLE 253395000	ARLICE R. CHURCHILL ET AL	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	701	271
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC	MEMORANDUM FARMOUT AGREEMENT	1522	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC	AMENDMENT TO FARMOUT AGREEMENT	1524	795
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	795
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584	795
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	795
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	795
				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
E	FK002249	p/o 17-12-0444-0031-0000, 17-12-0444-0031-0001	Q100652000 TITLE 253379000	J Q MUSSER ET UX	F E WILLIAMSON AND COMPANY	NOT LESS THAN 1/8	111	522
				F E WILLIAMSON AND COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	UNRECORDED	
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC	MEMORANDUM FARMOUT AGREEMENT	1522	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC	AMENDMENT TO FARMOUT AGREEMENT	1524	795
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	LIMITED PARTIAL ASSIGNMENT (50%)	1543	795
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY, LLC AND NOBLE ENERGY, INC.	PARTIAL ASSIGNMENT (32%)	1576	795
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584	795
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	795
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	795
				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				
F	FK014031	21-04-007B-0005-0000; 21-04-007B-0005-0001; 21-04-007B-0005-0002; 21-04-007B-0005-0003; 21-04-007B-0005-0004; 21-04-007B-0005-0005; 21-04-007B-0005-0006; 21-04-007B-0005-0007; 21-04-007B-0031-0000; p/o 21-04-007B-0035-0000; p/o 21-04-007B-0035-0004; p/o 21-04-007B-35-0005	Q100258000	S.G. HALL AND EMMA HALL, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	68	130
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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 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
				EARL WIMER, WIDOWER; BERTIE WIMER, SINGLE; MARY WIMODA WIMER, F	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	221	84
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	294	89
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	425	127				

RECEIVED  
 FEB 5 2019  
 Office of Oil and Gas  
 WV Department of  
 Environmental Protection

1209S LEASE CHAIN

G	FK064279	21-04-008B-0002-0000, 21-04-008B-0002-0001, p/o 21-04-008B-0002-0002, 21-04-008B-0002-0003, 21-04-007B-0035-0001, 21-04-007B-0035-0002, 21-04-007B-0035-0003, p/o 21-04-007B-0035-0000, p/o21-04-007B-0035-0004, p/o 21-04-007B-0035-0005	Q100701000	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	139
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	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				
6	FK064316	p/o 21-04-008B-0001-0000; 21-04-008B-0001-0002; 21-04-008B-0001-0003; 21-04-008B-0001-0004; 21-04-008B-0001-0006; p/o 21-04-008B-0001-0008; 21-04-008B-0001-0010; 21-04-008B-0001-0011; p/o 21-04-008B-0001-0012; 21-04-008B-0001-0013; 21-04-008B-0001-0014; p/o 21-04-008B-0001-0015; p/o 21-04-008B-0001-0016; 21-04-008B-0001-0017; 21-04-008B-0001-0021; 21-04-008B-0001-0022; 21-04-008B-0001-0023; 21-04-008B-0001-0024; 21-04-008B-0001-0026; p/o 21-04-008B-0001-0027; 21-04-008B-0001-0028; p/o 21-04-008B-0001-0029; p/o 21-04-008B-0001-0030; p/o 21-04-008B-0001-0031; p/o 21-04-008B-0001-0032; 21-04-008B-0001-0034; p/o 21-04-008B-0001-0035	Q100597000	W.L. RIFFE AND OLIVE G. RIFFE, HIS WIFE; GEORGE PICKENS AND CLARA PICKENS, HIS WIFE; CLYDE PICKENS, WIDOWER; ESCAR PICKENS AND MAE PICKENS, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	221	89
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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 CORPORATON	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 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				
J	FK077958	21-04-007B-0026-0000; 21-04-007B-0028-0000; 21-04-007B-0028-0001; 21-04-007B-0028-0002; 21-04-007B-0029-0000; 21-04-007B-0029-0001; 21-04-007B-0029-0002; 21-04-007B-0029-0003; 21-04-007B-0029-0004; 21-04-007B-0029-0005; 21-04-007B-0029-0006; 21-04-007B-0029-0007; 21-04-007B-0029-0009; 21-04-007B-0029-0009; 21-04-007B-0029-0010;	Q100740000	ALDA V. HITT, WIDOW	R.E. BEERY AND VICTOR BALDINI, PARTNERS DBA BITNER FUEL COMPANY	NOT MORE THAN 1/8	208	462
				R.E. BEERY AND VICTOR BALDINI, PARTNERS DOING BUSINESS AS THE BITNER FUEL COMPANY, AND FLKOIRENCE BALDINI, WIFE OF VICTOR BALDINI	R.E. BEERY	ASSIGNMENT	295	580
				EARL BEERY, DECOSTA E. SMITH, JR. AND MARK P. HITT, EXECUTORS AND TRUSTEES UNDER THE LAST WILL AND TESTAMENT OF ROBERT E. BEERY, DECEASED	CONSOLIDATED GAS SUPPLY CORPORATION	ASSIGNMENT	312	80
				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

WV Department of Environmental Protection



1209S LEASE CHAIN

		21-04-007B-0029-0011; 21-04-007B-0029-0012; 21-04-007B-0029-0013; 21-04-007B-0029-0014; 21-04-007B-0029-0015;		NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				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
K		21-04-007C-0030.0002	Q102176000 Title# 255787000	J. H. BAILEY ETAL	JAMES F. SCOTT	NOT LESS THAN 1/8	369	449
				JAMES F. SCOTT	George R. Gobson	ASSIGNMENT	378	159
				George R. Gibson ET UX	Randall Gibson	ASSIGNMENT	489	623
				George R. Gibson ET UX	EMAX OIL COMPANY	ASSIGNMENT	489	623
				George R. Gibson ET UX	Randall Gibson	ASSIGNMENT	489	625
				George R. Gibson ET UX	EMAX OIL COMPANY	ASSIGNMENT	489	623
				JAMES F. SCOTT	SCOTT OIL COMPANY	MERGER/NAME CHANGE		WVSOS
				SCOTT OIL COMPANY	EMAX OIL COMPANY	ASSIGNMENT	486	162
				EMAX OIL COMPANY, GEORGE R GIBSON, RANDALL GIBSON, AND RICHARD C. GIBSON	CABOT OIL AND GAS CORPORATION	ASSIGNMENT	513	82
				JAMES F. SCOTT	CABOT OIL AND GAS CORPORATION	ASSIGNMENT	515	147
				JAMES F. SCOTT	CABOT OIL AND GAS CORPORATION	QUIT CLAIM ASSIGNMENT	558	99
				EMAX OIL COMPANY	CABOT OIL AND GAS CORPORATION	ASSIGNMENT	558	92
				CABOT OIL AND GAS CORPORATION	ENERVEST APPALACHIA L P	ASSIGNMENT	558	249
				ENERVEST APPALACHIA L P	CGAS PROPERTIES L P	ASSIGNMENT	621	590
				CGAS PROPERTIES L P	CNX GAS COMPANY LLC	ASSIGNMENT	681	314
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
L		21-04-007C-0031-0000	Q102121000, Q102119000, Q102118000, Q102123000, Q102120000, Q098757000, Q102122000, Q102117000	KATRINA L WEST	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	704	563
				DAVID C GARVIN	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	704	555
				ALISA G GUM	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	704	551
				LORI LEE CALDWELL	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	704	571
				KARRIE DIANE SIMS	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	704	559
				GERALD W RAMSBURG	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	700	24
				KAREN K HOBBS	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	707	567
				DENISE C CARSON	CNX GAS COMPANY LLC	NOT LESS THAN 1/8	704	547
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
				M		21-04-008C-0001-0001	Q102115000	KEVIN B JERDEN ET UX
CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					1
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					139
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722					170
N		21-04-008C-0001-0004	Q097844000	KEVIN B. JERDEN AND SHERI K. JERDEN, HUSBAND AND WIFE	CNX GAS COMPANY, LLC.	NOT LESS THAN 1/8	692	409
				CNX GAS COMPANY, LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717	1
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	139
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170
		21-04-008C-0002-0000, 21-04-008C-0002-0001, 21-04-008C-0002-0002, 21-04-008C-0002-0003	MVA Department of Environmental Protection RECEIVED Office of Oil and Gas FEB - 5 2019	HUGH RAMSBURG AND FLOE RAMSBURG, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	255	543
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651	318
				CONSOL ENERGY HOLDINGS XVI	DOMINION EXPLORATION AND PRODUCTION, INC.	MERGER/NAME CHANGE		UNRECORDED

1209S LEASE CHAIN

O	FK068456	21-04-008C-0006-0001, 21-04-008C-0006-0002, 21-04-008C-0006-0003, 21-04-008C-0006-0004	FK068456	DOMINION EXPLORATION AND PRODUCTION, INC.	DOMINION TRANSMISSION, INC.	ASSIGNMENT	651	137				
				DOMINION EXPLORATION AND PRODUCTION, INC.	CONSOL ENERGY HOLDINGS LLC	MERGER/NAME CHANGE	UNRECORDED					
				CONSOL ENERGY HOLDINGS XVI	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	UNRECORDED					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	AMENDMENT TO ASSIGNMENT	658	715				
				CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	AMENDMENT TO ASSIGNMENT	658	728				
				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				
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	737	8				
				P?	CNX024531	21-04-008C-0003-0000	CNX024531	HOWARD NEELY, W.W. SMITH AND BERTIE SMITH, HIS WIFE	HOPE NATURAL GAS COMPANY	NOT LESS THAN 1/8	74	445
								HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	MERGER/NAME CHANGE	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 CORPORATON	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS									
DOMINION TRANSMISSION, INC.	CONSOL ENERGY HOLDINGS LLC XVI	ASSIGNMENT	651					318				
CONSOL ENERGY HOLDINGS LLC XVI	CONSOL GAS COMPANY	MERGER/NAME CHANGE	WVSOS									
CONSOL GAS COMPANY	CNX GAS COMPANY LLC	MERGER/NAME CHANGE	WVSOS									
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	659					521				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	717					1				
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	722	170								

**RECEIVED**  
 Office of Oil and Gas  
**FEB - 5 2019**  
 WV Department of  
 Environmental Protection



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

47 0 3 3 0 5 9 4 5  
03/29/2019

January 29, 2019

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

RE: Drilling Under Roads – Nays 1209 S-9H  
Union District, Harrison County  
West Virginia

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](mailto:dwhite@hgenergyllc.com) or 304-420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

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

**Date of Notice Certification:** 01/25/2019

**API No. 47-** \_\_\_\_\_

**Operator's Well No.** Nays 1209 S-9H

**Well Pad Name:** Nays 1209

**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>548192.2</u>
County:	<u>Harrison</u>		Northing:	<u>4333342.6</u>
District:	<u>Union</u>	Public Road Access:	<u>Kincheloe Run Road / SR35</u>	
Quadrangle:	<u>West Milford 7.5'</u>	Generally used farm name:	<u>Nays</u>	
Watershed:	<u>West Fork</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.

<p>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:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p style="font-size: small;">Office of Oil and Gas</p> <p style="font-size: large; font-weight: bold;">FEB - 5 2019</p> <p style="font-size: small;">WV Department of Environmental Protection</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
--	--

**Required Attachments:**

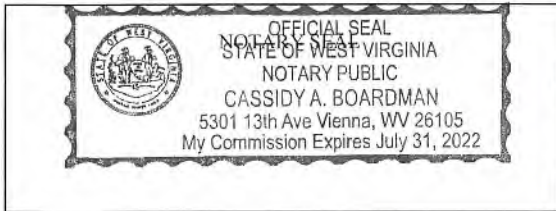
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication 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: HG Energy II Appalachia, LLC  
By: Diane White *Diane White*  
Its: Agent  
Telephone: 304-420-1119

Address: 5260 Dupont Road  
Parkersburg, WV 26101  
Facsimile: 304-863-3172  
Email: dwhite@hgenergyllc.com



Subscribed and sworn before me this 25th day of January, 2019.

*Cassidy A. 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](mailto:depprivacyofficer@wv.gov).

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

WW-6A  
(9-13)

API NO. 47- - **03/29/2019**  
OPERATOR WELL NO. Nays 1209 S-9H  
Well Pad Name: Nays 1209

**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:** 01/23/2019 **Date Permit Application Filed:** 02/08/19

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

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

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

RECEIVED  
Office of Oil and Gas  
**FEB - 5 2019**

WV Department of  
Environmental Protection

\*Please attach additional forms if necessary

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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's 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.

Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

**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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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.

RECEIVED  
Office of Oil and Gas

FEB - 5 2019

WV Department of  
Environmental Protection

WW-6A  
(8-13)

API NO. 47- \_\_\_\_\_ - **03/29/2019**  
OPERATOR WELL NO. Nays 1209 S-9H  
Well Pad Name: Nays 1209

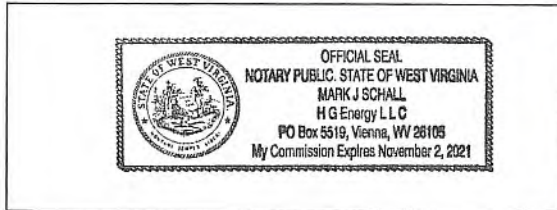
**Notice is hereby given by:**

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

Address: 5260 Dupont Road  
Parkersburg, WV  
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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



Subscribed and sworn before me this 23rd day of January, 2019.

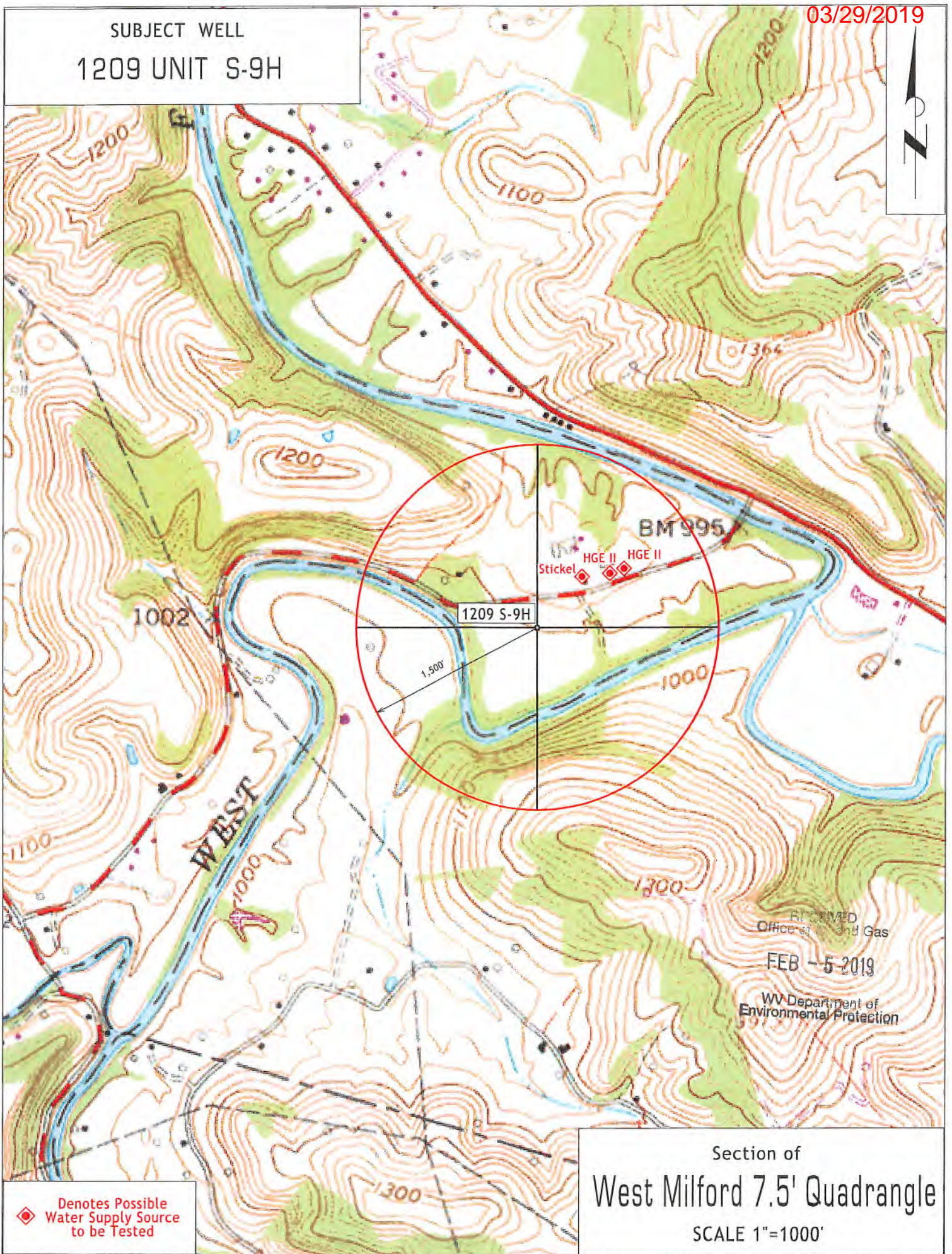
*Mark J Schall*  
\_\_\_\_\_  
Notary Public

My Commission Expires 11/2/2021

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

03/29/2019

SUBJECT WELL  
1209 UNIT S-9H



◆ Denotes Possible Water Supply Source to be Tested

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

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
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:** 1/16/19      **Date of Planned Entry:** 1/23/19

**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)

Name: HG Energy II Appalachia, LLC

Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: \_\_\_\_\_

Address: \_\_\_\_\_

MINERAL OWNER(s)

Name: See Attached List

Address: \_\_\_\_\_

\*please attach additional forms if necessary

RECEIVED  
Office of Oil and Gas  
**FEB - 5 2019**

**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: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.147946 / 80.442294</u>
County: <u>Harrison</u>	Public Road Access: <u>SR 19</u>
District: <u>Union</u>	Watershed: <u>West Fork</u>
Quadrangle: <u>West Milford 7.5'</u>	Generally used farm name: <u>Nays</u>

WV Department of  
Environmental Protection

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 57<sup>th</sup> 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](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

**Notice is hereby given by:**

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

**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](mailto:depprivacyofficer@wv.gov).

WW-6A3

1209S - 9H

(1-12)

Page 1 Continued

Mineral Owners

Alisa Carol Garvin Gum /  
1101 Broad Run Road /  
Jane Lew, WV 26378

Allen Dale Baker /  
700 Timothy Drive /  
Frankfort, KY 40601

Ann Covington /  
1401 Torrey Pines Dr /  
Columbia, MO 65203

Barbara Jane White /  
21 Hudson Ave /  
Ocean View, DE 19970

Buckner W. Hornor /  
486 Irish Hill Rd /  
Hopkinton, NH 03229-2202

Carmelita Gaines Yukevich /  
530 Scott Hall Road /  
Burgettstown, PA 15021

David C. Garvin /  
300 Riverside Dr. /  
Allegan, MI 49010

David H.Ramsburg /  
PO Box 894 /  
Jane Lew, WV 26378

David H.Ramsburg II /  
PO Box 894 /  
Jane Lew, WV 26378

Dawn Ford Cramer /  
71618 Gast Station Shipecy Road /  
St. Clairsville, OH 43950

David H.Ramsburg /  
PO Box 894 /  
Jane Lew, WV 26378

David H.Ramsburg II /  
PO Box 894 /  
Jane Lew, WV 26378

Dawn Ford Cramer /  
71618 Gast Station Shipecy Road /  
St. Clairsville, OH 43950

Deana Diane Roush /  
8 Silk Oak Street Lake /  
Placid, FL 33852

Deborah A. Stutler /  
126 Grey Feather Lane /  
Sagle, ID 83860

Deborah Nay Stutler /  
9967 WV Route 18S /  
New Milton, WV 26411

Denise Carol Ramsburg Carson /  
2516 Copley Road /  
Weston, WV 26452

Derrick J. Ramsburg /  
PO Box 894 /  
Jane Lew, WV 26378

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

WW-6A3

1209S - 9H

(1-12)

Page 1 Continued

Mineral Owners

Dewaine T. Norris ✓  
1869 Sierra Drive  
Marietta, GA 30062

Diane LaPosta ✓  
6700 Blake Pledger Court North  
Fort Myers, FL 33917

Dollena Joy Barber ✓  
1820 South Contention Lane  
Cottonwood, AZ 86326

Donald R. Reynolds ✓  
PO Box 607  
Jane Lew, WV 26378

Donald R. Wilson ✓  
212 NE 56th St  
Oak Island, NC 28465

Donald Reed Baker ✓  
5575 New Glendale Road  
Elizabethtown, KY 47201

Donald W. Higgins ✓  
PO Box 1465  
Weston, WV 26452

Dorothy Bryant ✓  
13430 Coppermine Road Apt. 230  
Herndon, VA 20171-4486

Dwight L. Musser ✓  
PO Box 597  
Scott Depot, WV 22560

Eleanor Lou Dotson ✓  
109 Loretta Ave  
Follensbee, WV 26037

Elizabeth Raye Musser ✓  
137 Wilson Lane  
Liberty, WV 25124

Erin Harrington Duffy ✓  
& Hugh Michael Duffy ✓  
97 Steele Road W  
Hartford, CT 06119

Ethel Jane Harman ✓  
PO Box 443  
Jane Lew, WV 26378

Evelyn F. Beeghley ✓  
1572 McNaughten Road ✓  
Columbus, OH 43232

Gerald Ramsburg ✓  
285 Parkview Dr  
Bridgeport, WV 26330

Gloria Rose Pauley ✓  
5521 West Pea Ridge Road ✓  
Huntington, WV 25705

Gregory C. & Debra L. Alderson ✓  
1235 Broad Run Rd ✓  
Jane Lew, WV 26378

Gregory Kevin Harrington ✓  
& Clair Kearney Harrington ✓  
1805 E. 16th Street, Unit B  
Austin, TX 78702

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

WW-6A3

1209S - 9H

(1-12)

Page 1 Continued

Mineral Owners

Jacqueline Musser McGhee  
53 Hillhouse Lane  
Ringgold, GA 30736

James Christopher Heater  
1119 Highland Ave.  
Vandergrift, PA 15690

James R. Kettering Jr.  
PO Box 511  
Fairmont, WV 26555-0511

James Y and Jean S Hornor  
5002 Esmond Lane  
Castle Rock, CO 80108-9027

Janie R. Goff  
PO Box 1977  
Middleburg, FL 32050

Jeannie McCormick  
1652 Lost Creek Roomins Mill Road  
Lost Creek, WV 26385

Joan Musser Massucci  
24325 Cardinal Place  
Lake Forrest, CA 92630

Joan Rose Jackson  
113 Apple Creek Est  
Elkins, WV 26241

John Henry McWhorter  
5392 Duck Creek Road  
Lost Creek, WV 26385

John I. Nye  
PO Box 1365  
Weston, WV 26452

John L. Breen  
PO Box 784  
Jane Lew, WV 26378

K. Kendall and Margaret Gaines  
Living Trust  
12401 Gayton Road Apt #449  
Henrico, VA 23238

Karen Kay Hobbs  
1241 E Jefferson Pike  
Murfreesboro, TN 37130

Karrie Diane Sims  
6833 Wagon Oak Dr  
Charlotte, NC 28212

Katrina Lynne West  
73 Kooter Lane  
Shinnston, WV 26431

Kendall Keith Gaines Jr.  
& Andrea Doreen Gaines  
4981 SE Inlet Isle Way  
Stuart, FL 34997

Kevin B. Jerden and Sheri K. Jerden  
1217 Broad Run Road  
Jane Lew, WV 26378

Lee Gregory  
1846 Powell Drive #106  
Fort Myers, FL 33917

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

WW-6A3

1209S - 9H

(1-12)

Page 1 Continued

Mineral Owners

Patricia Byrnes  
24012 Pear Tree Circle  
Plainfield, IL 60544

Paul Allen Hornor Jr.  
161 Cooing Dove Drive 9  
Bridgeport, WV 26330-6749

Paula E Freeman  
42023 Shadow Creek Ave  
Gonzales, LA 70737

Paula Freeman  
789 Elck City Road  
Jane Lew, WV 26378

Paula M Weller  
114 Kulps Rd  
Barto, PA 19504

Phyllis Anne Taylor  
187 River View Drive St  
Albans, WV 25177

Phyllis Kay Beare  
PO Box 388  
Jane Lew, WV 26378

Roberta M Green  
410 Masters Dr  
Cross Junction, VA 22625

Roberta Robinson  
Rt 5 Box 100  
Salem, WV 26426

Scott Winn  
12151 San Marino Ave NW  
Uniontown, OH 44685

Sharon Sue Garrison  
PO Box 388  
Jane Lew, WV 26378

Sharron Lipton  
113 Regency Cir  
Anderson, SC 29625

Shirley A Christian  
6089 Pond View Dr  
Birdsboro, PA 19508

Shirley Murphy  
828 Laurel Park Road  
Clarksburg, W 26301

Shirley Murphy and Keith Murphy  
828 Laurel Park Road  
Clarksburg, WV 26301

Steven M. & Tricia A. Jerden  
2809 Valley Chapel Rd  
Weston, WV 26452

Susan G. England  
3006 Little Dale Road  
Akron, OH 44319

Teresa H. Patino  
624 Fawell Court  
Naperville, IL 60565

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection



WW-6A3

(1-12)

1209S - 9H

Page 1 Continued

Mineral Owners

Terrie L. Titus & Brian Scott Titus  
1376 Broad Run Road  
Jane Lew, WV 26378

Theodore A. Nay  
346 Gooseman Road  
Jane Lew, WV 26378

Thomas F. Norris  
188 Montauk Dr  
Richmond Hills, GA 31324

Thomas H Wilson  
1412 Western Avenue  
Morgantown, WV 26505-2148

Trio Petroleum Corp  
PO Box 880  
Glennville, WV 26351

Waco Oil & Gas Company, Inc.  
PO box 880  
Glennville, WV 26351

WV Minerals Inc  
PO Box 5044  
Fairmont, WV 26555

HG Energy II Appalachia, LLC not noticed via certified mail.

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

WW-6A3

(1-12)

1209S - 9H

Page 1 Continued

Mineral Owners

Letitia Alkire  
65 Oak Street  
Salem, WV 26426

Linda S. Harris  
326 Township Road 1167  
Proctorville, OH 45669

Lori Henry  
12 Deerfield Road  
South Burlington, VT 05403

Lori Lee Caldwell  
16177 Aura Lane  
Bokeelia, FL 33922

Lynda Law Harrison Wilson  
2641 Paden Place  
Birmingham, AL 35226

Mary H. Balmer  
619 Ohio Ave  
Eustis, FL 32726-5121

Mary Jane Lewis  
146 E Main St  
Clarksburg, WV 26301

Mary Katherine Gum  
PO Box 321  
Jane Lew, WV 26378

Mary L. Buck  
2207 Park Ave.  
Parkersburg, WV 260101

Mary Louise Hardman  
822 Seamaster Dr.  
Houston, TX 77062

Marylyn K. Wolf  
3492 South Oakdale Terrace  
Inverness, FL 34452

Mathew Gaines  
and Lauren Leigh Harrington  
802 N 20th Street  
Philadelphia, PA 19130

Melissa A. Sigley  
c/o Roger G. Russell  
1331 Broad Run Rd  
Jane Lew, WV 26378

Michael Ross  
PO Box 219  
Coalton, WV 26257

Nardella Energy, LLC  
309 John Street  
Clarksburg, WV 26301

Patricia Butcher  
1633 Fuller Road  
Colorado Springs, CO 80920

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

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

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

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

**Date of Notice:** 10/31/2018      **Date Permit Application Filed:** 11/09/2018

**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  
Address: 5260 Dupont Road  
Parkersburg, WV 26101

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**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: 548192.2  
County: Harrison      Northing: 4333342.6  
District: Union      Public Road Access: Kincheloe Road/ SR35  
Quadrangle: West Milford 7.5'      Generally used farm name: Cone  
Watershed: West Fork

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://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  
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

**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](mailto:depprivacyofficer@wv.gov).

RECEIVED  
Office of Oil and Gas  
Environmental Protection

\* Notice was not sent because HG Energy II Appalachia LLC is the owner of the Surface Property and the Operator submitting the well work application.

WW-6A5  
(1/12)

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:** 10/31/2018 **Date Permit Application Filed:** 11/09/2018

**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 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: West Virginia UTM NAD 83 Easting: 548192.2  
County: Harrison Northing: 4333342.6  
District: Union Public Road Access: Kincheloe Run Road/ SR35  
Quadrangle: Audra 7.5' Generally used farm name: Cone  
Watershed: Elk Creek

**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 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting [www.dep.wv.gov/oil-and-gas/pages/default.aspx](http://www.dep.wv.gov/oil-and-gas/pages/default.aspx).

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

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019

**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 regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business operations, 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](mailto:depprivacyofficer@wv.gov).

\* Notice was not sent because HG Energy II Appalachia LLC, is the Owner of the Surface Property and the Operator submitting the well work application.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION  
**Division of Highways**

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

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

November 1, 2018

Jill M. Newman  
Deputy Commissioner

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

Subject: DOH Permit for the Nays 1209 Well Pad, Harrison County  
S-9H Well Site

Dear Mr. Martin,

This well site will be accessed from Permit #04-2018-0673 issued to HG Energy II Appalachia for access to the State Road for a well site located off of Harrison County 35 SLS.

The 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 January 3, 2012.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

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

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

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

**List of Frac Additives by Chemical Name and CAS #****Nays 1209 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	

RECEIVED  
Office of Oil and Gas  
FEB - 5 2019  
WV Department of  
Environmental Protection

# CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS HG 1209 PAD & IMPOUNDMENT

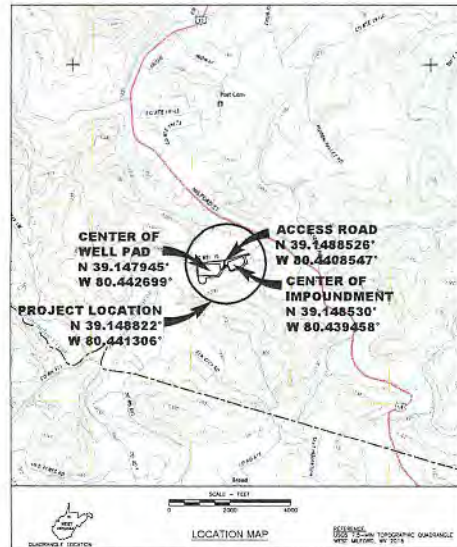
**APPROVED  
WVDEP OOG**

10/16/2018

UNION DISTRICT  
HARRISON COUNTY  
WEST VIRGINIA

### CONSTRUCTION SEQUENCE

1. Prior to commencement of any earth disturbance activity including clearing and grubbing, the registrant shall call West Virginia 811 by dialing 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.
2. 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.
3. 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.
4. Land Clearing and Grading - Implement clearing and grading only after all downslope E&S BMPs have been constructed and stabilized.
5. Surface Stabilization - Apply temporary or permanent stabilization measures immediately to any disturbed areas where work has reached final grade, has been delayed or otherwise temporarily suspended.
6. 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.
7. Upon completion of pad grading, compact the pad to grade and begin placement of pad soil cement.
8. Final Stabilization, Topsoiling, Trees and Shrubs - After construction is completed, install stabilization BMPs including permanent seeding, mulching and riprap, 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

Estimated Gross Material Balance (CY)		
Final Development - Gravel Option		
	Cut	Stockpile
Pad	18,751	51,320
Impoundment	47,954	14,737
Rest	155	904
Totals	66,860	67,061
Soil Adjustment for Aggregate Import		
Pad		2,338
Total Site Balance		
		157,021
Stripped Topsoil (Limit of Disturbance)		
Est. Swell Factor (20%)		14,007
Est. Topsoil Stockpile Volume (Loose CY)		2,811
Minimum Total Stockpile Capacity Required (CY)		16,898
		17,619

- Notes:
1. Material balances for est. gross earthwork quantities only.
  2. Topsoil est. volume based on 8 inches average depth.
  3. Material balance and aggregate quantities based on estimates and may not be representative of actual quantities.
  4. Estimates do not reflect contractor pay volumes.

Estimated Gravel Quantities (Paved CY)			
	Gravel Pad	Gravel	TOTAL
Gravel Quantities	8" Soil Cement	254	8,297
	3" Coarser Base	-	2,361
Top Coat Chip & Seal (Paved SY)	277 sq.	-	1,277 sq.
Estimated Compost Fiber Stock Length (LF)	0.48P	1.39P	4,762
Estimated Total Limit of Disturbance (Acres)			17,426
Estimated Impoundment Limit of Disturbance (Acres)			6,849
Estimated Well Pad & Road Limit of Disturbance (Acres)			11,577
Well Pad Peak Pre-Construction Elevation (Ft)			1033.0

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

RECORD OWNER	RECORD LOT #	RECORD AREA OF LOT	RECORD AREA WITHIN LCO
HG ENERGY II APPALACHIA, LLC	20-444-11.2	95.06 AC.	17,426 AC.
TOTAL LIMIT OF DISTURBANCE			17,426 AC.

	LATITUDE	LONGITUDE
1209 PAD & IMPOUNDMENT ENTRANCE	N 39.1488526	W 80.4408547

WELL #	LAT.	LONG.
N-1H	N 39.147928	W 80.442456
N-2H	N 39.147932	W 80.443488
N-3H	N 39.147980	W 80.443461
N-4H	N 39.148103	W 80.442470
N-5H	N 39.148062	W 80.443487
N-6H	N 39.148021	W 80.443464
N-7H	N 39.148029	W 80.442299
N-8H	N 39.147988	W 80.442299
N-9H	N 39.147948	W 80.442294
N-10H	N 39.148070	W 80.442302
N-11H	N 39.148111	W 80.442305
N-12H	N 39.148152	W 80.442308

THIS DRAWING IS UNLESS OTHERWISE NOTED TO A SCALE SHOWN AND ONLY INTENDED TO BE USED FOR THE PROJECT FOR WHICH IT IS PREPARED. THE DESIGNER HAS CONDUCTED VISUAL CHECKS OF THIS DRAWING FOR CONFORMANCE WITH THE REQUIREMENTS OF THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES. ANY FIELD USE OF THIS DRAWING IS AT THE USER'S RISK. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND REGULATIONS FROM THE APPROPRIATE AGENCIES.

REVISION	DATE	DESCRIPTION
1	5/27/18	ISSUE REVISIONS AND REVISIONS FOR PERMITS
2	6/28/18	PERMITS REVISIONS AND REVISIONS FOR PERMITS
3	6/12/18	REVISIONS RECEIVED, REVISED BY OWNER AND SUBMITTED
4	7/25/18	REVISIONS FOR PERMITS
5	10/27/18	ADD WELL AND STOCKPILE VOLUMES FOR EROSION AND SEDIMENTATION
6	10/27/18	REVISIONS TO BMPS FOR PERMITS AND VEHICLE LABELS



TITLE SHEET  
HG 1209 PAD & IMPOUNDMENT  
UNION DISTRICT  
HARRISON COUNTY, WEST VIRGINIA

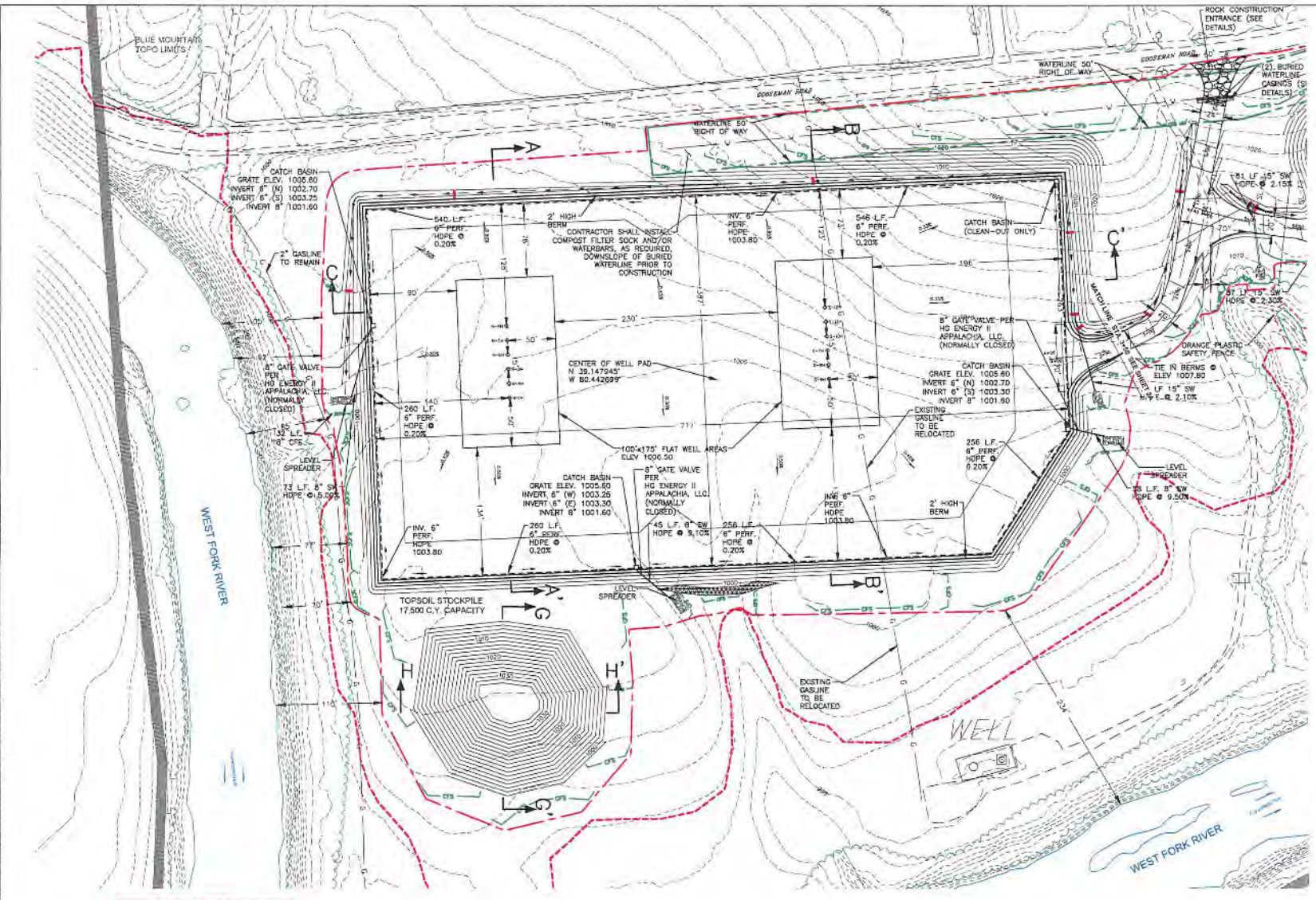
PREPARED FOR  
**HG ENERGY II APPALACHIA, LLC**  
PARKERSBURG, WEST VIRGINIA

**WEST VIRGINIA 811** CALL BEFORE YOU DIGI Dial 811 or 800.245.4848  
www.811.wv.gov

APPROVED SEP 23/2018  
DESIGNED SEP 23/2018  
DRAWN DIA 05/08/2018  
PROJECT No. 4000-PA07715  
DRAWING NUMBER PA07715-001 SHEET 1  
**Penn E&R** Environmental & Remediation, Inc.  
111 RYAN COURT, PITTSBURGH, PA 15205, 412-722-1222

S:\PROJECT FILES\4000-PA07715 - HG 1209\DRAWINGS\1209 PAD & IMPOUNDMENT\PA07715 TITLE SHEET.DWG, 10/12/2018 1:56 PM

S:\PROJECT\ALTA\1600-PAD0715-16-1200-ORWINDMST-1209-PAD-6-IMPONDUWINDMST0715-PAD1209-UTM-BLANCETOWNS-07/17/2018-2.13.PM



**APPROVED  
WVDEP OOG**

10/16/2018

- LEGEND**
- ROCK CHECK DAM
  - BRUSH ARROW
  - ACCESS ROAD/PAD CHANNEL
  - COMPOST FILTER SOCK 8" UNLESS OTHERWISE NOTED
  - STACKED COMPOST FILTER SOCK 8"
  - APPROXIMATE LINES OF DISBURSANCE
  - APPROXIMATE 50' WATERLINE RIGHT OF WAY
  - APPROXIMATE PROPERTY LINE
  - EXISTING INDEX CONTOUR
  - EXISTING INTERMEDIATE CONTOUR
  - PROPOSED FINAL ORICE INDEX CONTOUR
  - PROPOSED FINAL ORICE INTERMEDIATE CONTOUR
  - LIMITS OF BLUE MOUNTAIN WAPPING
  - EXISTING TREE LINE
  - APPROXIMATE 100' IN FLOODPLAIN BOUNDARY
  - CHAIN LINK FENCE WITH SECURITY WALL
  - EXISTING GASLINE
- SECTION**  
SECTION SHEET 5
- SEE THE BEACH (SEE DETAILS)

- WEST VIRGINIA GENERAL NOTES**
1. REFER TO THIS SHEET WITH THE CONSTRUCTION NOTES AND DETAILS.
  2. CONTRACTOR SHALL CONDUCT WETLAND DELINEATION PRELIMINARY TO CONSTRUCTION (PER 601-2-2). CONTRACTOR SHALL NOTIFY WVDEP 72 HOURS PRIOR TO CONDUCTING WORK IN THE WETLANDS.
  3. SITE SHALL BE CONDUCTED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.
  4. ALL UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS PRIOR TO CONSTRUCTION.
  5. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  6. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  7. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  8. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  9. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  10. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  11. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  12. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  13. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  14. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  15. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  16. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  17. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  18. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  19. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.
  20. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL NEIGHBORING PROPERTIES AT ALL TIMES.

**REVISIONS**

NO.	DATE	DESCRIPTION
1	5/21/18	ADDED PROPOSED AND MODIFICATIONS FOR SEDIMENTATION
2	5/29/18	ADD SPREADING PERSON RATED STRAPED SHOULDER SHOULDER SHOULDER
3	6/11/18	ADJUSTMENT PROPOSING ADJUSTED SITE BALANCE AND STOCKPILE
4	7/20/18	MODIFICATIONS PER DEP COMMENTS
5	10/10/18	ADDED WATER BARRIERS PER DEP COMMENTS
6	10/12/18	ADJUSTMENTS PER DEP COMMENTS AND DEP COMMENTS

**SCALE - FEET**

0 20 40 60 80 100

**WEST VIRGINIA STATE SEAL**

**STATE OF WEST VIRGINIA**

**28408**

**PROFESSIONAL ENGINEER**

**SITE DEVELOPMENT PLAN  
WITH EROSION AND SEDIMENTATION CONTROLS  
HG 1209 PAD & IMPONDUWINDMST  
UNION DISTRICT  
HARRISON COUNTY, WEST VIRGINIA**

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

**WEST VIRGINIA 80**

**CALL BEFORE YOU DIG!**

Dial 811 or  
800.245.4848

Max Utility of West Virginia

COORDINATES: UTM WITH NAD 83  
DATUM: ZONE 17, U.S. FOOT CENTRAL

APPROVED: MEP 05/23/2018  
CHECKED: MEP 05/23/2018  
DRAWN: DEP 05/23/2018  
PROJECT NO.: 4000-PAD0715  
DRAWING NUMBER: PAD0715-001  
SHEET: 2/6

**Penn E&R**  
Environmental & Remediation, Inc.

111 MAIN COURT, HILLSBOROUGH, NJ 08520  
412-722-1222

1. SERVICE UTILITY LINES ARE NOT SHOWN ON THIS PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MARKING AND LOCATING AN ACCESSWAY TO UTILITY CENTRAL SERVICE.