



west virginia department of environmental protection

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

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

Wednesday, May 19, 2021
WELL WORK PERMIT
Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
5260 DUPONT ROAD

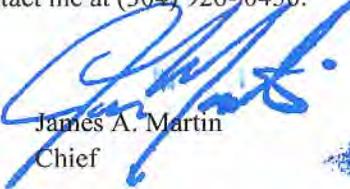
PARKERSBURG, WV 26101

Re: Permit approval for SCHOEN 1205 N-5H
47-033-06009-00-00

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: SCHOEN 1205 N-5H
Farm Name: GEORGE & ROSEANNE SCHIFF
U.S. WELL NUMBER: 47-033-06009-00-00
Horizontal 6A New Drill
Date Issued: 5/19/2021

PERMIT CONDITIONS

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

CONDITIONS

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

API Number: _____

PERMIT CONDITIONS

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

05/28/2021



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

Austin Caperton, Cabinet Secretary
dep.wv.gov

**ORDER
ISSUED UNDER
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 6A**

TO: HG Energy, LLC
5260 Dupont Circle
Parkersburg, WV 26101

DATE: November 30, 2020
ORDER NO.: 2020-W-6

INTRODUCTION

This Order (hereinafter “Order”) is issued by the Office of Oil and Gas (hereinafter “OOG”), by and through its Chief, pursuant to the authority of W. Va. Code §§ 22-1-1, 22-6-1 and 22-6A-1 *et seq.* to HG Energy, LLC (hereinafter “HG” or “Operator”), collectively the “Parties.”

FINDINGS OF THE CHIEF

In support of this Order, the Chief hereby finds the following:

1. OOG, an office within the West Virginia Department of Environmental Protection, is the agency with the duty and authority to execute and enforce W. Va. Code §22-6-1 and §22-6A-1 *et seq.*, and the rules and regulations promulgated thereunder.
2. HG is a “person” as defined by W. Va. Code §22-6-1(n), with a corporate address as 5260 Dupont Circle, Parkersburg, WV 26101.
3. On September 3, 2020 HG submitted a well work permit application identified as API# 47-033-05995. The well is located on the Schoen 1205 Pad in the Grant Creek District of Harrison County, West Virginia.
4. On September 3, 2020 HG requested a waiver for Wetlands A and B as outlined in Attachment 1, from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-033-05995. Wetlands C, D and E are excluded from this waiver, they are more than 100’ from the LOD of the pad.

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CONCLUSIONS OF LAW

1. West Virginia Code §22-1-6(d) requires, in part, that “in addition to other powers, duties and responsibilities granted and assigned to the secretary by this chapter, the secretary is authorized and empowered to... (3) Enter private lands to make surveys and inspections for environmental protection purposes; to investigate for violations of statutes or rules which the Office of Oil and Gas is charged with enforcing; to serve and execute warrants and processes; to make arrests; issue orders, which for the purposes of this chapter include consent agreements; and to otherwise enforce the statutes or rules which the Office of Oil and Gas is charged with enforcing.”
2. West Virginia Code §22-6A-2(a)(6) requires, in part, that “Concomitant with the broad powers to condition the issuance of well work permits, the secretary should also have broad authority to waive certain minimum requirements of this article when, in his or her discretion, such waiver is appropriate: *Provided*, That the secretary shall submit a written report of the number of waivers granted to the Legislature commencing January 1, 2013, and each year thereafter.”
3. West Virginia Code §22-6A-12(b) requires, in part, that “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 Office of Oil and Gas 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 Office of Oil and Gas 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.”

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ORDER

West Virginia Code §22-6A-12(b) requires, in part, that “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. The Office of Oil and Gas grants the request for a waiver for Wetlands A and B from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API#s 47-033-05995. The Office of Oil and Gas hereby **ORDERS** that HG shall meet the following site construction and operational requirements for the Schoen 1205 Well Pad:

- a. A berm shall be constructed around the perimeter of the pad to contain any potential spills and storm water runoff. Berm is to be at least twenty-four inches (24”) in height.
- b. Erosion control blankets shall be installed on all slopes and down gradient locations of the pad as erosion and sediment controlling BMPs.
- c. Wetlands A and B shall be protected by two layers of eight (8”) compost filter sock. This along with temporary and permanent vegetative cover will prevent sediment from reaching the wetlands.
- d. Disturbed areas not used for operations shall be seeded and mulched per the seeding tables in the WVDEP-OOG Erosion and Sediment Control Manual.
- e. Drill cuttings and associated drilling mud shall be disposed of in a permitted landfill.
- f. Waste generated by the flowback treatment systems shall be sent to offsite disposal at a permitted landfill.
- g. Weekly site inspections shall be conducted to monitor and maintain the integrity of the BMP storm water controls.
- h. Weekly storm water and spill prevention inspections shall be conducted focusing on storm water and spill prevention BMPs and maintenance of these BMPs.
- i. Inspections of the storm water and spill prevention measures shall be conducted after any major storm event defined as a half inch (½”) rain within any twenty-four (24) hour period.
- j. Pad inspections shall be conducted no less than once a week to identify and mitigate potential deficiencies.
- k. All records from inspections shall be maintained on site for the life of the project and be available upon request.

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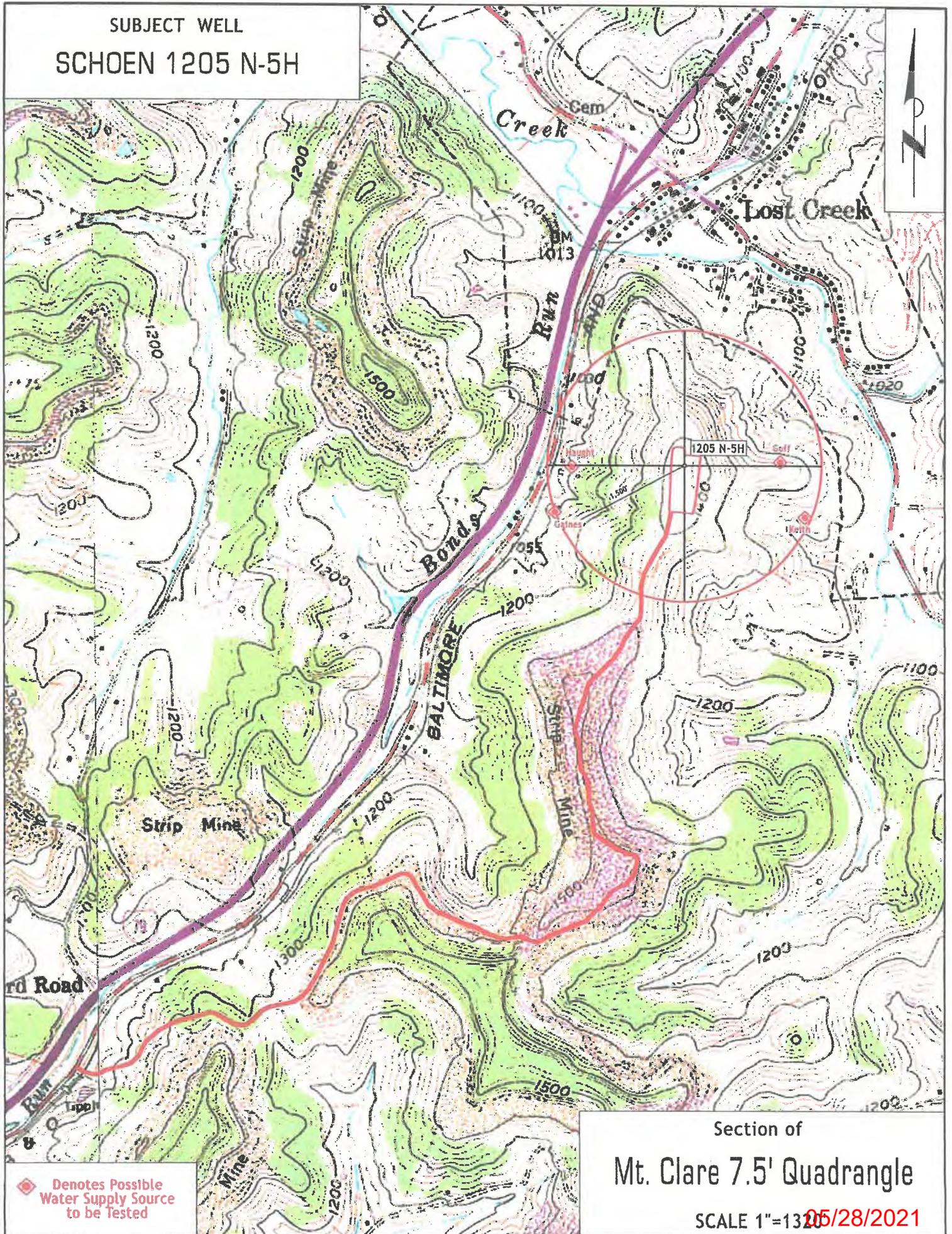
Thus ORDERED, the 30th day of November 2020.

IN THE NAME OF THE STATE OF WEST VIRGINIA:

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

By: _____
JAMES A. MARTIN, CHIEF

SUBJECT WELL
SCHOEN 1205 N-5H



◆ Denotes Possible Water Supply Source to be Tested

Section of
Mt. Clare 7.5' Quadrangle

SCALE 1"=1320' 05/28/2021

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 Grant Mount Clare 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Schoen 1205 N-5H Well Pad Name: Schoen 1205

3) Farm Name/Surface Owner: George Schoen Public Road Access: McWhorter Road / SR25

4) Elevation, current ground: 1410' Elevation, proposed post-construction: 1407'

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

(b) If Gas Shallow Deep _____
Horizontal _____

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus at 7214' / 7315' and 101' in thickness. Anticipated pressure at 4314#.

*SDW
3/24/2021*

8) Proposed Total Vertical Depth: 7240'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 23,716'

11) Proposed Horizontal Leg Length: 14,876'

12) Approximate Fresh Water Strata Depths: 135', 480', 640', 728'

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

14) Approximate Saltwater Depths: 1730, 1780, 2010

15) Approximate Coal Seam Depths: 501, 650', 730', 736' (Surface casing is being extended to cover the coal in the DTI Storage Field)

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

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

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

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WW-6B
(04/15)

API NO. 47- 033-06009
 OPERATOR WELL NO. Schoen 1205 N-5H
 Well Pad Name: Schoen 1205

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1200'	1200'	40% excess, CTS
Intermediate 1	13 3/8"	NEW	J-55	68	2100'	2100'	40% excess, CTS
Intermediate 2	9 5/8"	NEW	J-55	40	2950'	2950'	40% excess tail, CTS
Production	5 1/2"	NEW	P-110	23	23716'	23716'	20% excess tail, CTS
Tubing							
Liners							

*SPW
3/24/2021*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	24"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Lead 40% excess, Tail 0% excess
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/Class A	20% excess yield = 1.16, tail yield 1.16
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7240 feet. Drill horizontal leg to estimated 14,876' lateral length, 23,716' TMD. Hydraulically fracture stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ACP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

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

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 29.485 acres

22) Area to be disturbed for well pad only, less access road (acres): 9.246 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 - Blow Spring on every joint, will also be running ACP for isolating storage zone
Intermediate - Blow 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 6.5' 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 - 15.5 ppg PNE-1 + 3% bwoc CaCl₂, 40% Excess Yield = 1.20, CTS
Intermediate 1 - *Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl₂ 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS*
Intermediate 2 - *Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl₂ 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl 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 MPA170Tall: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17020% ExcessLead Yield=1.19Tail Yield=1.94CTS*

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.

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*Note: Attach additional sheets as needed.

HG Energy II Appalachia, LLC

Schoen 1205 Well Pad (N-1H, N-2H, N-3H, N-4H, N-5H, N-6H, S-7H, S-8H, S-9H, S-10H, S-11H)

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 (SiO ₂)	0.1 - 1	14808-60-7			
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Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO₂)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO ₂)	5 - 10	14808-60-7									
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Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
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Cello Flake	Lost Circulation	Graded (3/8 to 3/4 inch) cellophane flakes used as a lost circulation material.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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FP-13L	Foam Preventer	FP-13L is a clear liquid organic phosphate antifoaming agent used in cementing operations. It is very effective minimizing air entrapment and preventing foaming tendencies of latex systems.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Tributyl phosphate</td> <td>90 - 100</td> <td>126-73-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Tributyl phosphate	90 - 100	126-73-8												
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Granulated Sugar	Retarder	Used to retard cement returns at surface. A proprietary product that provides expansive properties and improves bonding at low to moderate temperatures.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Sucrose</td> <td>90 - 100</td> <td>57-50-1</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Sucrose	90 - 100	57-50-1												
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EC-1	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>No hazardous ingredient</td> <td></td> <td></td> </tr> </tbody> </table>	Ingredient name	%	CAS number	No hazardous ingredient														
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Poz (Fly Ash)	Base	A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Crystalline silica: Quartz (SiO₂)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Crystalline silica: Quartz (SiO ₂)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8									
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R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
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S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucopyranose, oligomeric, C10-18-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucopyranose, oligomeric, C10-18-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
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APR 14 2021

WV Department of
Environmental Protection

05/28/2021

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1205 N-5H
Marcellus Shale Horizontal
Harrison County, WV

Ground Elevation			1205 N-5H SHL				14218731.39N 1824131.9E			
Azm			1205 N-5H LP				14220076.28N 1826908.64E			
WELLBORE DIAGRAM			1205 N-5H BHL				14234097.45N 1821954.07E			
HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS	
30"	30" 157.5# LS	Conductor	0	120	AIR	N/A, Casing to be drilled in w/ Dual Rotary Rig	N/A	Ensure the hole is clean at TD.	Conductor casing = 0.5" wall thickness	
		Fresh Water	0	135, 480, 640, 728	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Centralized every 3 joints to surface	Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.	Surface casing = 0.438" wall thickness Burst=2110 psi	
Coal	730	736								
Surface / FW	0	1200								
17.5"	13-3/8" 68# J-55 BTC	Little/Big Lime	1467 / 1510	1482 / 1556	AIR / KCL Salt Polymer	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. CTS	Bow Spring on every joint <i>*will also be running ACP for isolating storage zone*</i>	Once casing is at setting depth, Circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.	Intermediate casing = 0.480" wall thickness Burst=3450 psi	
		Injun / Gantz (Storage)	1565 / 1900	1690 / 1970						
		Intermediate 1	0	2100						
12.25"	9-5/8" 40# J-55 BTC	Fifty / Thirty Foot	1993 / 2112	2093 / 2147	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	2195 / 2250	2250 / 2310						
		5th Sand	2440	2468						
		Warren	2835	2860						
8.75" Vertical	5-1/2" 23# P-110 HP CDC HTQ	Intermediate 2	0	2950	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 Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA170 20% Excess Lead Yield=1.19 Tail Yield=1.94 CTS	Run 1 spiral centralizer every 5 joints from the top of the curve to surface.	Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2x bottoms up, or until returns and pump pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.	Production casing = 0.415" wall thickness Burst=16240 psi Note:Actual centralizer schedules may be changed due to hole conditions	
		Speechley	3028	3162						
		Bradford	3342	3367						
8.5" Curve		Rhinestreet	5872	6549	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	6549	6740						
		Middlesex	6740	6870						
8.5" Lateral		West River	6870	7003	11.5ppg-12.5ppg SOBM					
		Burkett	7003	7048						
		Tully Limestone	7048	7149						
		Hamilton	7149	7214						
	Marcellus	7214	7315							
TMD / TVD (Production)	23716	7240								
Onondaga	7315									

LP @ 7240' TVD / 8840' MD

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

+/-14876' ft Lateral

TD @ +/-7240' TVD
+/-23716' MD

X=centralizers

WW-9
(4/16)

API Number 47 - 033 - 06009
Operator's Well No. Schoen 1205 N-5H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) Middle West Fork Creek Quadrangle Mount Clare 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 _____)

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

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

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

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

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

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

-Landfill or offsite name/permit number? See Attached

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

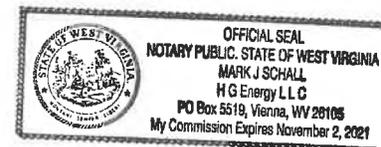
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations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

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

Company Official Signature Diane White RECEIVED Office of Oil and Gas
 Company Official (Typed Name) Diane White APR 14 2021
 Company Official Title Agent WV Department of Environmental Protection

Subscribed and sworn before me this 29th day of January, 2021
[Signature] Notary Public

My commission expires 11/2/2021



05/28/2021

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 29.465 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	<u>40</u>
Ladino Clover	<u>5</u>

Seed Type	lbs/acre
Tall Fescue	<u>40</u>
Ladino Clover	<u>5</u>

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: Bang Shih

Comments: Pre-seed/mulch as soon as reasonably possible per regulation.
Upgrade E&S if needed per WV DEP E&S manual.

Title: Oil & Gas Inspector

Date: 2-2-21

Field Reviewed? Yes No

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Cuttings Disposal/Site Water

Cuttings -Haul off Company:

Eap Industries, Inc. DOT # 0876278
1575 Smith Two State Rd. Atlasburg, PA 15004
1-888-294-5227

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

Environmental Coordination Services & Recycling (ECS&R)
3237 US Highway 19
Cochranon, PA 16314
814-425-7773

Disposal Locations:

Apex Environmental, LLC Permit # 06-08488
11 County Road 78
Amsterdam, OH 43903
740-543-4989

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

Sycamore Landfill Inc, Permit #R30-079001 05-2010
4301 Sycamore Ridge Road
Hurricane, WV 25526
304-562-2611

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

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

Waste Management Kelly Run Permit # 100663
1901 Park Side Drive
Elizabeth, PA 15037
412-384-7569

Waste Management South Hills (Arnoni) Permit # 100592
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 # SWF-103-97 / WV 0109029
Rd 2 Box 410
Colliers, WV 26035
304-748-0014

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Wetzel County Landfill Permit # SWF-1021-97 / WV 0109185
Rt 1 Box 156A
New Martinsville, WV 26035
304-455-3800

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

Energy Solutions Services, Inc. Permit # R-73006-L24
1560 Bear Creek Road
Oak Ridge, TN 37830

Northern A-1 Environmental Services Permit ID MID020906814
3947 US 131 North, PO Box 1030
Kalkaska, MI 49646
231-258-9961

Water Haul off Companies:

Dynamic Structures, Clear Creek DOT # 720485
3790 State Route 7
New Waterford, OH 44445
330-892-0164

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

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

Nuverra Environmental Solutions
11942 Veterans Memorial Highway
Masontown, WV 26542

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

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

Disposal Locations:

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

Solidification/Incineration
Soil Remediation, Inc. Permit # 02-20753
6065 Arrel-Smith Road
Lowelville, OH 44436
330-536-6825

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

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

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

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

Equipment Transport
1 Tyler Court
Carlisle, PA 17015

Myers Well Service,
2001 Ballpark Court
Export, PA 15632

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

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

Groselle (SWIW #34)
Permit # 4096
Rt. 88
Garrettsville, OH
713-275-4816

Kemble 1-D Well
Permit # 8780
7675 East Pike
Norwich, Oh 43767
614-648-8898
740-796-6495

05/28/2021

Adams #2 (Buckeye Brine, LLC)
2205 Westover Road
Austin Tx 78703
Permit # 34-031-2-7178
740-575-4484
512-478-6545

Adams #3 (Buckeye Brine, LLC)
Permit #34-031-2-7241-00-00
2630 Exposition, Suite 117
Austin, TX 78703
512-478-6545

Mozena #1 Well (SWIW # 13)
Permit # 34-157-2-5511-00-00
5367 E. State Street
Newcomerstown, OH 43832
740-763-3966

Goff SWD #1 (SWIW # 27)
Permit # 34-119-2-8776-000
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-329-7275

SOS D#1 (SWIW #12)
Permit # 34-059-2-4202-00-00
Silcor Oilfield Services, Inc.
2939 Hubbard Road
Youngstown, OH 44505

Dudley #1 UIC (SWIW #1)
Permit # 34-121-2-2459-00-00
Select Energy Services, LLC
7994 S. Pleasants Hwy
St. Marys, WV 26170
304-665-2652

OH UIC #1 Bu keye UIC Barnesville 1 & 2
CNX Gas Company, LLC
1000 Consol Energy Drive
Permit # 34-013-2-0609-00-00
Permit # 34-013-2-0614-00-00
304-323-6568

US Steele 11385
Permit # 47-001-00561
200 Evergreen Drive
Waynesburg, PA 15730
304-323-6568

Chapin #7 UIC (SWIW #7)
Permit # 34-083-2-4137-00-00
Elkhead Gas & Oil Company
12163 Marne Rd. NE
Newark, OH 43055
740-763-3966

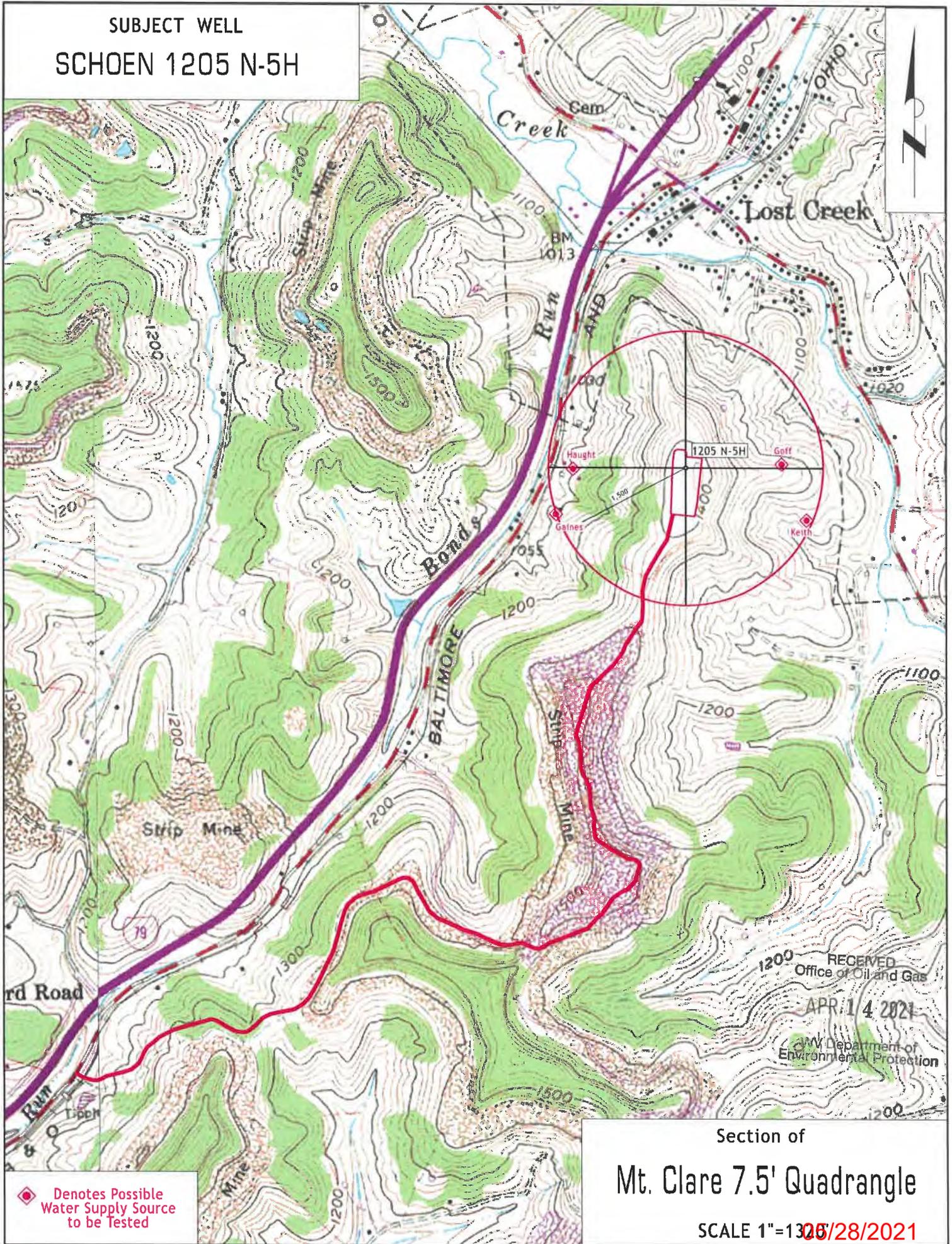
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SUBJECT WELL
SCHOEN 1205 N-5H



◆ Denotes Possible Water Supply Source to be Tested

Section of
Mt. Clare 7.5' Quadrangle

SCALE 1"=1325/28/2021

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HG Energy II Appalachia, LLC

Site Safety Plan

Schoen 1205 Well Pad

1279 Sutton Farm Rd
Lost Creek
Harrison County, WV 26385

August 2020: Version 1

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

HG Energy II Appalachia, LLC

5260 Dupont Road
Parkersburg, WV 26101

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~~SDU~~
~~8/27/2020~~ ✓
B.S. 2-2-21

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EXISTING WELLS LOCATED WITHIN THE AREA OF REVIEW FOR:

SCHOEN 1205 NORTH UNIT AND PROPOSED WELLS N-1H, N-2H, N-3H, N-4H & N-5H

CT	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	TVD	STATUS	LATITUDE	LONGITUDE
1	4703300308	Harrison	June Ludwig CW541	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1913	PLUGGED	39.158341	-80.334821
2	4703300310	Harrison	Alice V Knisley	Dominion Energy Transmission, Inc.	Gantz	Storage	1824	ACTIVE	39.157059	-80.340613
3	4703300322	Harrison	J M Swisher	Hope Natural Gas Company	UNKNOWN	not available	-	ABANDONED	39.167870	-80.365986
4	4703300324	Harrison	John H Hardway 1	Dominion Energy Transmission, Inc.	Gantz	Storage	1644	ACTIVE	39.153472	-80.355885
5	4703300360	Harrison	Jesse C Stout	Hope Natural Gas Company	UNKNOWN	not available	-	ABANDONED	39.177946	-80.345070
6	4703300369	Harrison	S D B Church	Hope Natural Gas Company	UNKNOWN	not available	-	ABANDONED	39.170834	-80.343766
7	4703300382	Harrison	M V Bassell	Dominion Energy Transmission, Inc.	Gantz	Storage	1653	ACTIVE	39.167589	-80.345998
8	4703300397	Harrison	Marcella R Bond	Hope Natural Gas Company	Up Devonian	Gas	1587	PLUGGED	39.152681	-80.357369
9	4703300398	Harrison	J N Rector	Hope Natural Gas Company	Thirty-foot	Storage	2002	PLUGGED	39.149633	-80.359418
10	4703300400	Harrison	Porter M Rogers	Hope Natural Gas Company	Thirty-foot	Storage	2085	PLUGGED	39.162985	-80.351406
11	4703300408	Harrison	M R Bond	Dominion Energy Transmission, Inc.	Gantz	Storage	1726	ACTIVE	39.155851	-80.357903
12	4703300410	Harrison	E A Waggoner	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1964	ACTIVE	39.148438	-80.357974
13	4703300548	Harrison	Mollie V Bassel	Dominion Energy Transmission, Inc.	Benson	Storage	4350	ACTIVE	39.168367	-80.342834
14	4703300654	Harrison	A V Knisley CW542	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1748	ACTIVE	39.159938	-80.337616
15	4703300659	Harrison	S V Curry CW433	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1990	ACTIVE	39.149343	-80.352710
16	4703300661	Harrison	M S Davis CW538	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1885	ACTIVE	39.154774	-80.339266
17	4703300672	Harrison	M V Bassell CW452	Dominion Energy Transmission, Inc.	Fifth	Storage	2233	ACTIVE	39.171125	-80.343021
18	4703300677	Harrison	D L Nutter	Alliance Petroleum Co. LLC	Thirty-foot	Gas	1850	ABANDONED	39.155655	-80.342933
19	4703300685	Harrison	A V Knisley CW547	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1940	ACTIVE	39.165325	-80.338945
20	4703300686	Harrison	Lloyd Stout CW458	Dominion Energy Transmission, Inc.	Gordon	Storage	2051	PLUGGED	39.176350	-80.348052
21	4703300690	Harrison	J J Lewis CW438	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1853	ACTIVE	39.154132	-80.353828
22	4703300692	Harrison	J C Stout CW456	Dominion Energy Transmission, Inc.	Gantz	Storage	1950	PLUGGED	39.171996	-80.346933
23	4703300709	Harrison	M Bond CW335	Dominion Energy Transmission, Inc.	Thirty-foot	Gas	2025	PLUGGED	39.159079	-80.361666
24	4703300710	Harrison	Ray Swisher CW455	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2017	PLUGGED	39.172431	-80.359233
25	4703300711	Harrison	Lewis Davis CW340	Dominion Energy Transmission, Inc.	Gordon	Storage	2117	PLUGGED	39.169606	-80.367107
26	4703300717	Harrison	E H Stout CW464	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1996	ACTIVE	39.183988	-80.351326
27	4703300727	Harrison	Marcella R Bond	Dominion Energy Transmission, Inc.	Benson	Gas	4305	ACTIVE	39.162713	-80.357152
28	4703300737	Harrison	M Bond CW446	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1904	ACTIVE	39.163560	-80.354301
29	4703300741	Harrison	A D Bassell CW453	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2208	PLUGGED	39.172441	-80.348854
30	4703300742	Harrison	A D Bassell CW459	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2145	PLUGGED	39.177553	-80.350856
31	4703300746	Harrison	A Stalnakar CW445	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1935	PLUGGED	39.161560	-80.350301
32	4703300751	Harrison	Emma Post CW451	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2248	ACTIVE	39.169652	-80.353945
33	4703300754	Harrison	A D Bassell CW457	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2160	PLUGGED	39.174028	-80.353269
34	4703300755	Harrison	P Maxwell CW461	Dominion Energy Transmission, Inc.	Gantz	Storage	2188	PLUGGED	39.180559	-80.353642
35	4703300764	Harrison	Milton S Davis	Dominion Energy Transmission, Inc.	Hampshire Grp	Gas	2214	PLUGGED	39.153552	-80.339108
36	4703300771	Harrison	O G Kennedy CW338	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1996	PLUGGED	39.167697	-80.365568
37	4703300776	Harrison	L Gifford CW337	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1973	ACTIVE	39.165584	-80.364807
38	4703300783	Harrison	M V Bassell CW448	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Storage	2127	PLUGGED	39.163631	-80.347893

SOURCE: WVGES DATASET (2020) and WVDOP WEBSITE AND FIELD SURVEYS

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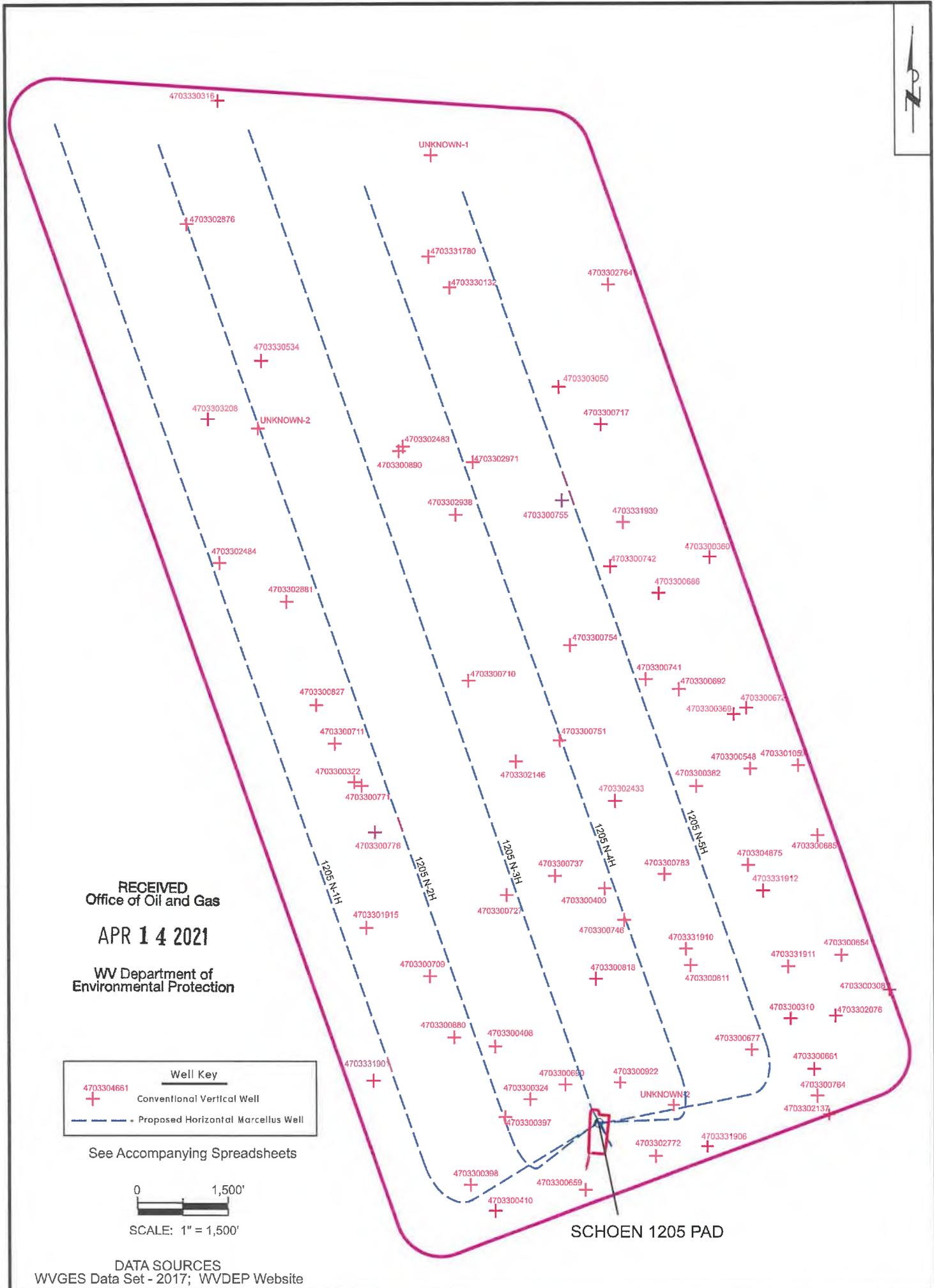
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39	4703300811	Harrison	D L Nutter	Domain Energy Transmission, Inc.	Gas	4365	ACTIVE	39.159500	-80.346443
40	4703300818	Harrison	David C Curry CW441	Domain Energy Transmission, Inc.	Fifty-foot	1880	PLUGGED	39.158922	-80.351965
41	4703300827	Harrison	A W Smith	Domain Energy Transmission, Inc.	Fifth	2389	ACTIVE	39.171375	-80.368174
42	4703300880	Harrison	Marcella Bond	Domain Energy Transmission, Inc.	Gas	4476	ACTIVE	39.156295	-80.360290
43	4703300890	Harrison	C H Woodford	Domain Energy Transmission, Inc.	Gas	4660	ACTIVE	39.182815	-80.363180
44	4703300922	Harrison	A B Yost	Domain Energy Transmission, Inc.	Gas	4455	ACTIVE	39.154204	-80.350633
45	4703301050	Harrison	Bassell 3	Domain Energy Transmission, Inc.	Gas	2314	PLUGGED	39.168513	-80.340039
46	4703301915	Harrison	G Thomas Smith	Domain Energy Transmission, Inc.	Gas	4630	ACTIVE	39.161289	-80.365368
47	4703302076	Harrison	A V Knisley	Domain Energy Transmission, Inc.	Gas	4227	ACTIVE	39.157180	-80.337989
48	4703302137	Harrison	M S Davis	Domain Energy Transmission, Inc.	Gas	4478	ACTIVE	39.152701	-80.338421
49	4703302146	Harrison	Emma Post	Domain Energy Transmission, Inc.	Gas	4980	ACTIVE	39.168746	-80.356491
50	4703302433	Harrison	M V Bassell	Domain Energy Transmission, Inc.	Gas	4657	ACTIVE	39.166932	-80.350738
51	4703302483	Harrison	C H Woodford CW347	Domain Energy Transmission, Inc.	Observation	2164	PLUGGED	39.183028	-80.362946
52	4703302484	Harrison	C H Woodford CW343	Domain Energy Transmission, Inc.	Thirty-foot	1960	ACTIVE	39.177808	-80.373752
53	4703302764	Harrison	Sarah Heldreth 3	Domain Energy Transmission, Inc.	Fifth	-	PLUGGED	39.190301	-80.350811
54	4703302772	Harrison	J H & C Gerlach	Greylock Conventional, LLC	Gas	4427	ACTIVE	39.150855	-80.348565
55	4703302876	Harrison	L J Stenger et al	P. G. Oil & Gas, LLC	Gas	5100	ACTIVE	39.193173	-80.375451
56	4703302881	Harrison	E S Swisher (CW-344)	Domain Energy Transmission, Inc.	not available	-	PLUGGED	39.176059	-80.369854
57	4703302938	Harrison	Carl Smith Jr	Domain Energy Transmission, Inc.	Fifty-foot	2221	ACTIVE	39.179913	-80.359897
58	4703302971	Harrison	P Maxwell et al (CW-463)	Domain Energy Transmission, Inc.	not available	-	PLUGGED	39.182300	-80.358860
59	4703303050	Harrison	Porter Maxwell (CW-465)	Domain Energy Transmission, Inc.	not available	-	PLUGGED	39.185710	-80.353760
60	4703303208	Harrison	Porter Maxwell	Domain Energy Transmission, Inc.	not available	-	PLUGGED	39.184352	-80.374325
61	4703304875	Harrison	Worthy C Hall	Domain Energy Transmission, Inc.	Thirty-foot	2362	PLUGGED	39.164004	-80.343017
62	4703330132	Harrison	Thomas B Reed	Hope Natural Gas Company	Gas	2455	PLUGGED	39.190219	-80.360075
63	4703330316	Harrison	W B Lowther	Philadelphia Oil Co.	Oil and Gas	2455	PLUGGED	39.198796	-80.373534
64	4703330534	Harrison	Porter Maxwell 3	Hope Natural Gas Company	Gas	2352	PLUGGED	39.186975	-80.371151
65	4703331780	Harrison	Margert Reed	Hope Natural Gas Company	Gas	2476	PLUGGED	39.191607	-80.361276
66	4703331901	Harrison	S J Davison CW332	Consolidated Gas Supply Corp.	Storage	2330	OBSERVATION	39.154343	-80.365053
67	4703331906	Harrison	F S Young	Consolidated Gas Supply Corp.	Storage	1910	UNKNOW	39.151280	-80.345552
68	4703331910	Harrison	F S Young	Consolidated Gas Supply Corp.	Storage	1910	UNKNOW	39.160252	-80.346711
69	4703331911	Harrison	D L Nutter CW444	Consolidated Gas Supply Corp.	Storage	2235	UNKNOW	39.159435	-80.340704
70	4703331912	Harrison	D L Nutter CW449	Consolidated Gas Supply Corp.	Storage	2362	UNKNOW	39.162871	-80.342146
71	4703331930	Harrison	E H Stout CW462	Consolidated Gas Supply Corp.	Storage	2480	UNKNOW	39.179554	-80.350086
72	UNKNOW-N-1	Harrison	Sarah L Vanhorn 1	UNKNOW	Fifth	-	PLUGGED	39.196215	-80.361079
73	UNKNOW-N-2	Harrison	J.J. Lewis	UNKNOW	not available	-	PLUGGED	39.153186	-80.347510
74	UNKNOW-N-3	Harrison	Bond Heirs	UNKNOW	not available	2445	PLUGGED	39.183895	-80.371408

YELLOW DENOTES WELL WITH TVD > 4,500'

GREEN DENOTES SURVEYED WELLS



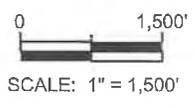
RECEIVED
Office of Oil and Gas
APR 14 2021

WV Department of
Environmental Protection

Well Key

- + 4703304661 Conventional Vertical Well
- Proposed Horizontal Marcellus Well

See Accompanying Spreadsheets



DATA SOURCES
WVGES Data Set - 2017; WVDEP Website

Area of Review for:

SCHOEN 1205 NORTH UNIT

- Proposed 1205 N-1H
- Proposed 1205 N-2H
- Proposed 1205 N-3H
- Proposed 1205 N-4H
- Proposed 1205 N-5H
- Proposed 1205 N-6H

Grant District, Harrison County, W.Va.

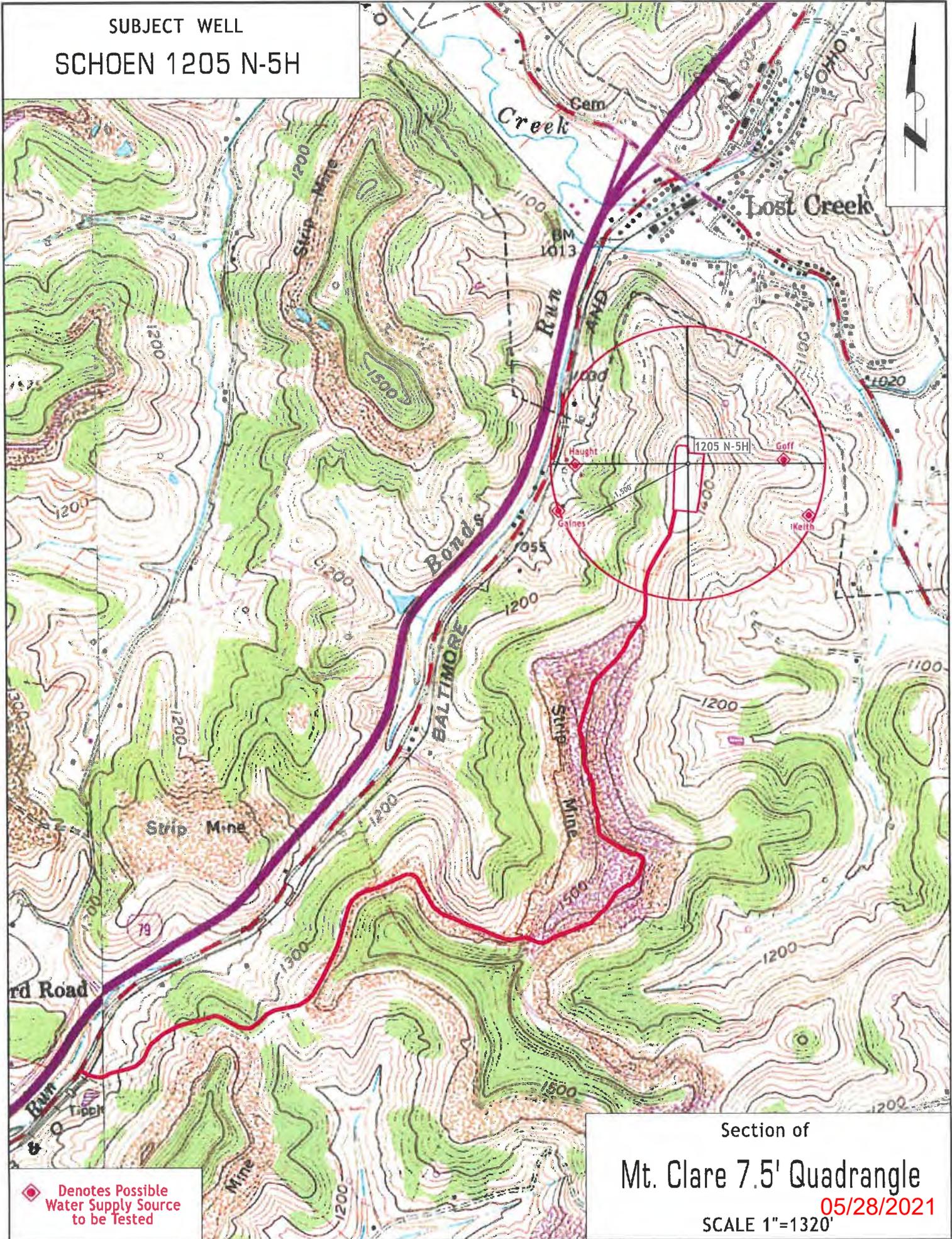
HG ENERGY, II APPALACHIA, LLC
5260 DuPont Road, Parkersburg, WV 26101



05/28/2021

12/28/2020

SUBJECT WELL
SCHOEN 1205 N-5H



Section of
 Mt. Clare 7.5' Quadrangle
 05/28/2021
 SCALE 1"=1320'

◆ Denotes Possible
 Water Supply Source
 to be Tested

**HG Energy II
Appalachia, LLC
Well No. Schoen
1205 N-5H**



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

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



Legend

- ⊙ Proposed gas well
- ◆ Well Reference, as noted
- ⊛ Monument, as noted
- ☀ Existing Well, as noted
- ☀ Existing Plugged Well, as noted
- ☀ Digitized Well, as noted
- Surface boundary (approx.)
- Interior surface tracts (approx.)
- - - Creek or Drain
- Existing Road
- +++++ Railroad Tracks

47-033-00880
47-033-00408
47-033-No Tag
47-033-00324
3000'
Proposed Well Schoen 1205 N-5H Top Hole
47-033-00410

47-033-00677
47-033-00922
47-033-No Tag (Plugged)
47-033-01906A
Water Well
47-033-02772
47-033-No Tag
47-033-00856

Note: 1 water well was found within 1500' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

GRID NORTH
SEAL

Schoen 1205 N-5H Bottom Hole

7,393' to Bottom Hole

5,328' to Top Hole
BTM LATITUDE 39 - 12 - 30
TOP LATITUDE 39 - 10 - 00

LONGITUDE 80 - 20 - 00

5,264' to Top Hole
5,053' to Bottom Hole

Notes:
Well No. Schoen 1205 N-5H
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Top Hole coordinates Latitude: 39°09'07.96" Longitude: 80°21'07.66" UTM Zone 17, NAD 1983
Bottom Hole coordinates Latitude: 39°11'40.04" Longitude: 80°21'33.93" UTM Zone 17, NAD 1983
Top Hole Coordinates N: 4,333,877.996m E: 555,996.514m
Bottom Hole Coordinates N: 4,338,561.580m E: 555,332.711m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Notes:
Well No. Schoen 1205 N-5H UTM NAD 1983 (USSF)
Top Hole Coordinates N: 14,218,731.39' E: 1,824,131.90'
Landing Point Coordinates N: 14,220,076.28' E: 1,826,908.64'
Bottom Hole Coordinates N: 14,234,097.45' E: 1,821,954.07'

Tag	Bearing	Dist.
L1	N 56°09' W	1,091.9'
L2	S 77°39' W	1,203.5'
L3	S 69°34' E	1,196.6'
L4	S 82°23' E	1,492.9'
L5	N 64°09' E	3,085.3'

See Detail 4 (Page 4)

See Detail 3 (Page 4)

See Detail 2 (Page 3)

See Detail 1 (Page 2)

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

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

DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06009
STATE COUNTY PERMIT

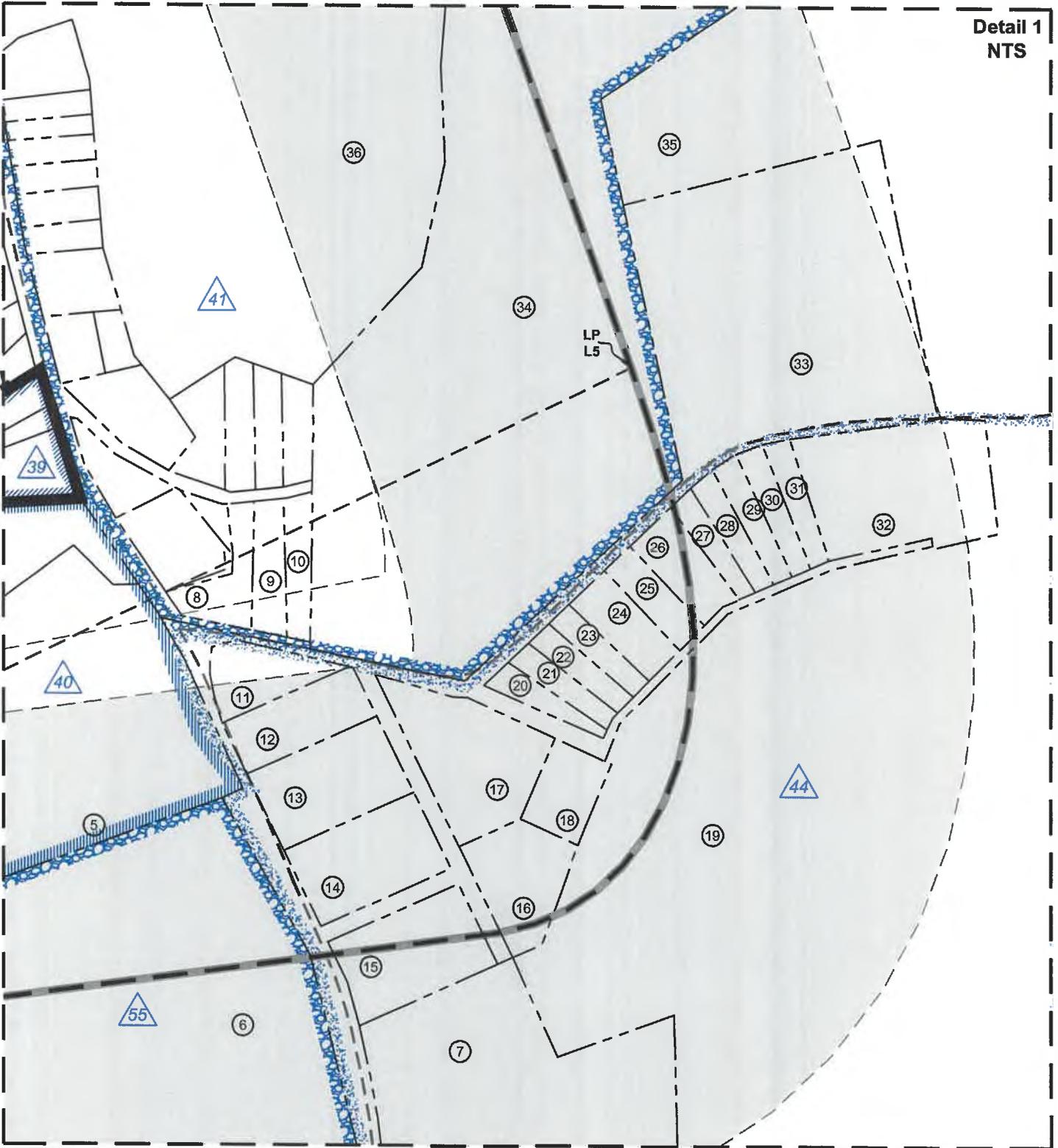
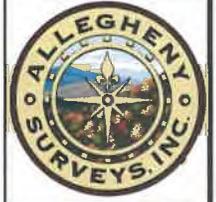
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union
SURFACE OWNER: George & Rosanne Schoen
ROYALTY OWNER: Willa Post Robey, et al LEASE NO: ACREAGE: 78.20

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 7,240' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD

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

Top: Mount Clare
Btm: West Milford
COUNTY: Harrison
ACREAGE: 78.20
05/28/2021



**Detail 1
NTS**

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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



DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06009
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union

SURFACE OWNER: George & Rosanne Schoen

ROYALTY OWNER: Willa Post Robey, et al

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

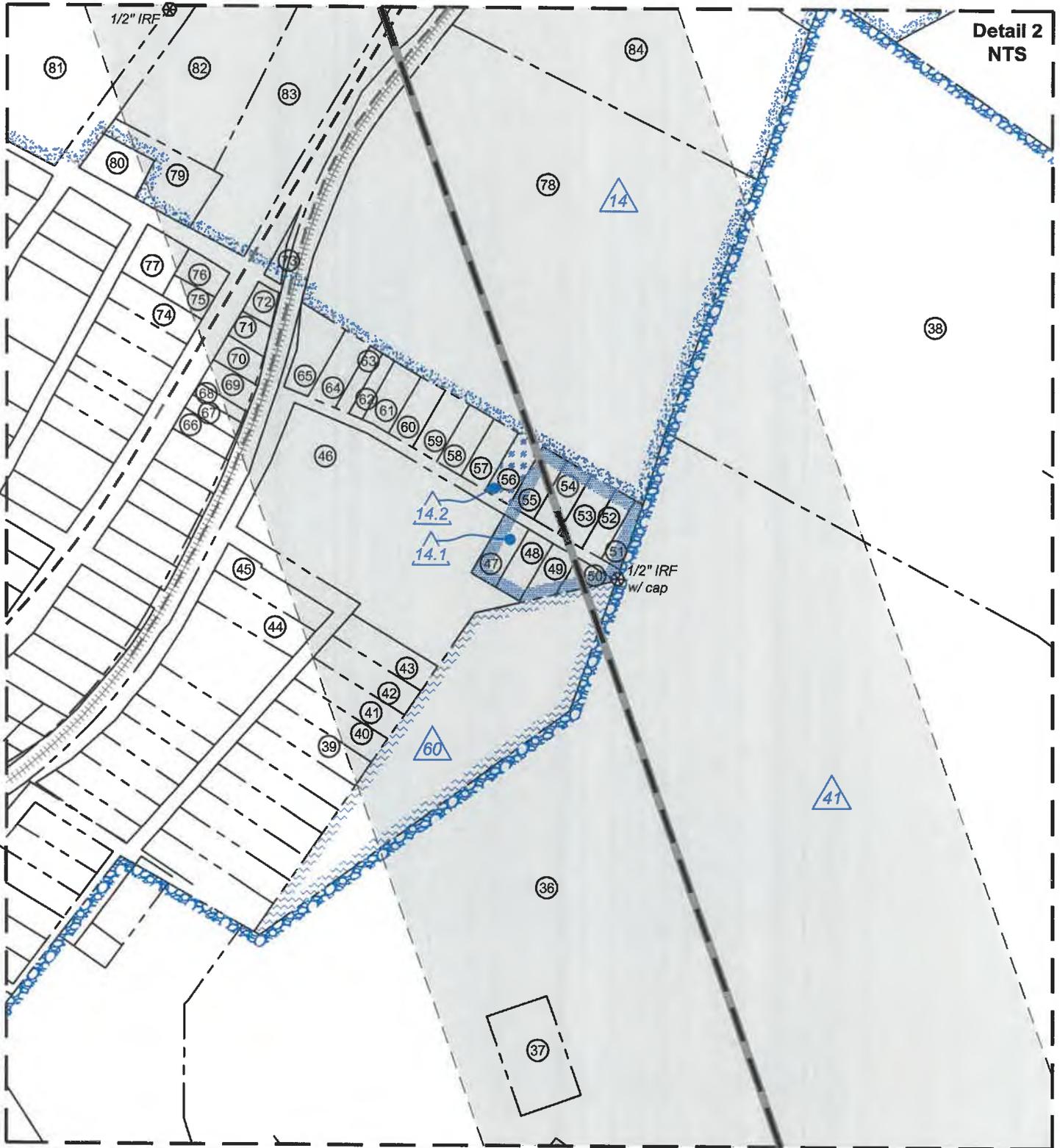
PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD 7,240' TVD

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

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

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APR 14 2021
COUNTY: Harrison
ACREAGE: 65.06
05/28/2021

Top: Mount Clare
Bottom: West Milford



Detail 2
NTS

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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



DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06309
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek

DISTRICT: Grant / Union

SURFACE OWNER: George & Rosanne Schoen

ROYALTY OWNER: Willa Post Robey, et al

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

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD 7,240' TVD

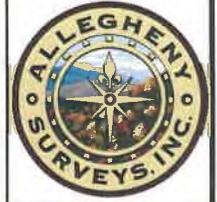
WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

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

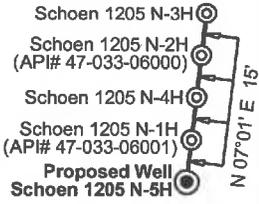
RECEIVED
Office of Oil and Gas
APR 14 2021
Top: Mount Clare
Btm: West Milford
QUADRANGLE: _____
COUNTY: Harrison
ACREAGE: 65.00

LEASE NO. _____ ACREAGE: 78.20
WV Department of Environmental Protection

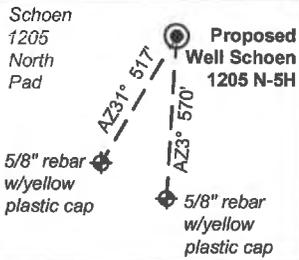
05/28/2021



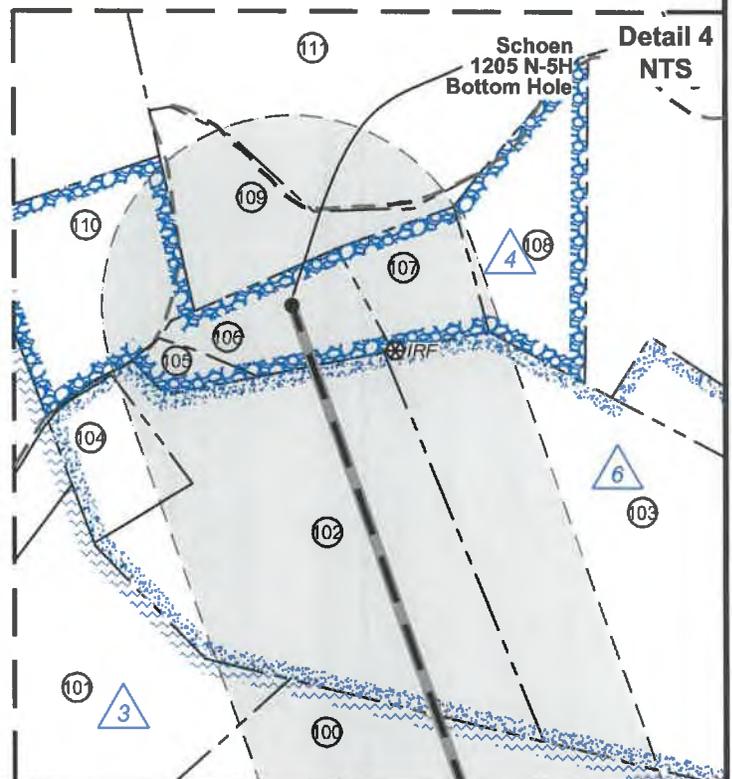
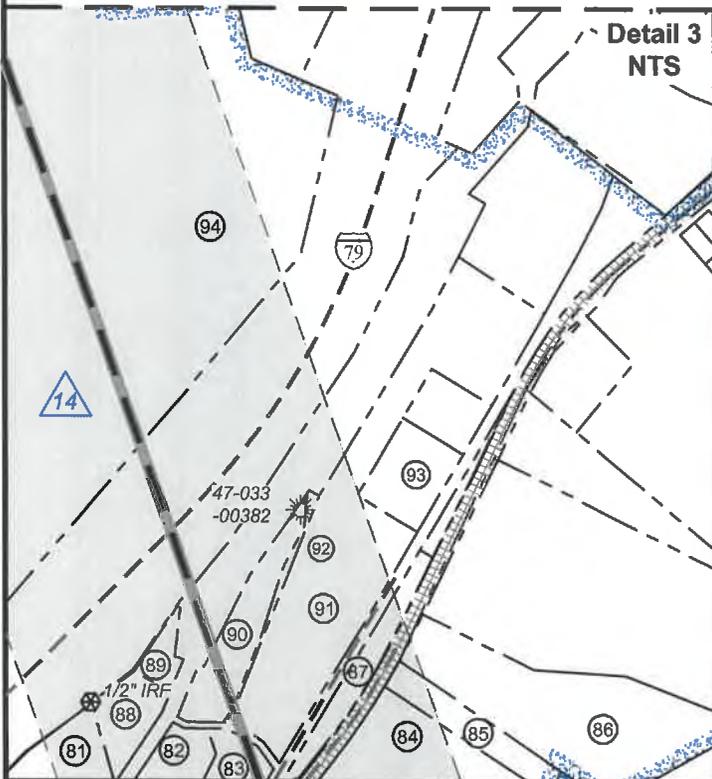
Wellhead Layout (NTS)



**Well Location References
Not to Scale**



ID	Lease
3	Emory L. Stout, et ux
4	Cassie G. Smith, et al
6	Edna M. Swisher, et al
8	Porter Maxwell, et al
14	Mollie V. Bassell, et al
14.1	Charles D. Lesson
14.2	Brenda Joyce Cogar, et al
39	Willa Post Robey, et al
40	Charlotte C. Gerlach, et ux
41	D.L. Nutter, et ux
44	Milton S. Davis, et al
55	French S. Young, et ux, et al
60	Betty J. & Isaac H. Maxwell, III



FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

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



DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06009
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union

SURFACE OWNER: George & Rosanne Schoen
ROYALTY OWNER: Willa Post Robey, et al

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

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD 7,240' TVD

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

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

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APR 14 2021

WV Department of
Environmental Protection

QUADRANGLE: Top: Mount Clare
Btm: West Milford
COUNTY: Harrison
ACREAGE: 69.02
05/28/2021
ACREAGE: 78.20



No.	TM / Par	Owner	Bk / Pg	Ac.
1	447 / 2	George & Rosanne Schoen	1148 / 1059	65.00
2	447 / 3	George & Rosanne Schoen	1253 / 302	10.06
3	447 / 3.4	Stephen M & Kimberly Goff	1257 / 189	7.67
4	447 / 3.3	Charlotte C. Gerlach	1070 / 1041	6.10
5	447 / 3.2	Michael Tillman & Mary Hencke	1257 / 193	5.86
6	447 / 4.1	Joseph & Karen Bowers	1295 / 887	21.87
7	447 / 6.1	Michael & Charlotte Moses	1364 / 7	7.20
8	2105 / 51	Helen Irene Eakle Estate	— / —	—
9	2105 / 52	Virgil Lamb	1577 / 1012	0.33
10	2105 / 55	Rondal Lake	1415 / 288	0.23
11	2105 / 118	Church of God Trustees	1097 / 818	—
12	2105 / 119	Church of God Trustees	1097 / 818	—
13	2105 / 120	Church of God Trustees	1097 / 818	—
14	2105 / 121	Charles & Mitzie Reider	1646 / 958	0.88
15	2105 / 122	Janice Dean	1456 / 1011	0.99
16	2105 / 57	Thomas & Terri Hawkins	1558 / 1255	0.76
17	2105 / 56	Thomas & Terri Hawkins	1558 / 1255	1.41
18	2105 / 58	Thomas & Terri Hawkins	1558 / 1255	0.38
19	447 / 6	Thomas E. & Terri E. Hawkins	1558 / 1255	84.25
20	2105 / 59	Mary Ann Bowyer, et al	F1118 / 63	0.23
21	2105 / 60	Mary Ann Bowyer, et al	F118 / 63	0.22
22	2105 / 61	Lisa Hickman	1621 / 760	0.21
23	2105 / 62	Lisa Hickman	1621 / 760	0.20
24	2105 / 63	Lisa Hickman	1621 / 760	0.38
25	2105 / 64	David W. Stutler	1482 / 433	0.28
26	2105 / 65	Jean Riffle Estate	— / —	0.42
27	2105 / 67	Jean Riffle Estate	— / —	0.21
28	2105 / 68	Jean Riffle Estate	— / —	0.25
29	2105 / 69	Jean Riffle Estate	— / —	0.26
30	2105 / 70	Kevin R. Kolenda	1257 / 800	0.26
31	2105 / 71	Kevin R. Kolenda	1257 / 800	0.26
32	2105 / 73	Paul Wintners Estate	W201 / 472	1.53
33	427 / 28.1	Allen Scott Hall	1265 / 589	5.40
34	427 / 34	Worthy C. Hall	1577 / 626	27.00
35	427 / 28	Worthy C. Hall	1577 / 626	248.44
36	427 / 33	Isaac & Betty Maxwell	1539 / 141	72.00
37	427 / 33.1	Greater Harrison Co.	1424 / 1161	0.48
38	427 / 27	Worthy C. Hall	1577 / 626	51.75
39	2103 / 94	Candice S. Wheeler	W125 / 113	0.25
40	2103 / 88	Candice S. Wheeler	W125 / 113	0.24
41	2103 / 82	Candice S. Wheeler	W125 / 113	0.23
42	2103 / 75	Candice S. Wheeler	W125 / 113	0.22
43	2103 / 68	Candice S. Wheeler	W125 / 113	0.22
44	2103 / 74	Eugene N. & Linda S. Alkire	1131 / 636	0.23
45	2103 / 67	Charles Melton Estate, et al	— / —	0.26
46	2103 / 37	Christian R. Grymes	1516 / 139	2.95
47	2103 / 38	Charles D. Lesson	1585 / 664	—
48	2103 / 39	Charles D. Lesson	1585 / 664	—
49	2103 / 40	Charles D. Lesson	1585 / 664	—
50	2103 / 41	Charles D. Lesson	1585 / 664	—
51	2103 / 26	Charles D. Lesson	1585 / 664	—
52	2103 / 25	Charles D. Lesson	1585 / 664	—
53	2103 / 24	Charles D. Lesson	1585 / 664	—
54	2103 / 23	Charles D. Lesson	1585 / 664	—
55	2103 / 22	Charles D. Lesson	1585 / 664	—
56	2103 / 21	Joshua & Harley Miller Cogar	W174 / 683	—

No.	TM / Par	Owner	Bk / Pg	Ac.
57	2103 / 20	Joshua & Harley Miller Cogar	W174 / 683	—
58	2103 / 19	Dennis W. & Rose M. Chamberlain	1335 / 911	—
59	2103 / 18	Dennis W. & Rose M. Chamberlain	1335 / 911	—
60	2103 / 17	Jonah E. Cogar	1432 / 493	—
61	2103 / 16	Jonah E. Cogar	1432 / 493	—
62	2103 / 15.1	Jonah E. Cogar	1432 / 493	—
63	2103 / 15	Eugene R. Smith Jr.	1329 / 532	—
64	2103 / 14	Eugene R. Smith Jr.	1329 / 532	—
65	2103 / 13	Drexal L. Mullen	W134 / 323	—
66	2103 / 51	Judith A. Corkrean	1148 / 474	0.11
67	2103 / 46	Judith A. Corkrean	1148 / 474	—
68	2103 / 46.1	Judith A. Corkrean	1148 / 474	—
69	2103 / 36	Judith A. Corkrean	1148 / 474	—
70	2103 / 31	Beverly A. Foster	1096 / 205	—
71	2103 / 12	Beverly A. Foster	1096 / 20	—
72	2103 / 7	Beverly A. Foster	1096 / 205	—
73	2103 / 2	Beverly A. Foster	1096 / 205	—
74	2103 / 30	Gregory A. Foster	1404 / 455	—
75	2103 / 11	Gregory A. & Beverly A. Foster	1256 / 109	—
76	2103 / 6	Gregory A. & Beverly A. Foster	1256 / 109	—
77	2103 / 11.1	Joshua D. Messenger	1492 / 197	0.24
78	427 / 13	Dennis & Rose Chamberlain	1321 / 102	9.25
79	427 / 1.12	Jerry & Myrna Kincaid	1484 / 1045	0.30
80	2103 / 1	Jerry & Myrna Kincaid	1484 / 1045	0.19
81	427 / 1.6	Michel M. Lewis	1598 / 301	2.45
82	427 / 1.7	Apostolic Christian	1598 / 301	3.83
83	427 / 1.13	Apostolic Christian	1598 / 296	1.80
84	427 / 14	Debra & David Shriver	1218 / 787	4.19
85	427 / 15	Reid & Vicki Smith	1506 / 332	0.63
86	427 / 16	Reid & Vicy Smith	1336 / 710	4.21
87	427 / 1.10	Charles & Nancy Shock	1299 / 472	0.80
88	427 / 1.5	Michel M. Lewis	1444 / 142	0.76
89	427 / 1.4	Walter & David Nutter	0.25	0.25
90	427 / 1.8	Apostolic Christian	1466 / 825	1.41
91	427 / 1.9	Charles & Nancy Shock	1368 / 201	5.96
92	427 / 1.14	Apostolic Christian	1596 / 475	0.15
93	427 / 1.2	Mary Jane Lewis	1452 / 1191	1.00
94	427 / 1	Walter E. Nutter & David H. Nutter	154 / 301	228.20
95	427 / 3	Walter Nutter	W154 / 301	8.00
96	427 / 48	Walter E. & David H. Nutter	W154 / 301	33.00
97	427 / 61	Walter E. & David H. Nutter	W154 / 301	116.16
98	406 / 25	Richard D. Mendez	W168 / 424	192.71
99	406 / 25	Isaac H. III & Betty Jean Maxwell	1509/934	255.20
100	406 / 27	James Stout	W161 / 306	43.50
101	406 / 11	Mildred Stout	1138 / 993	44.80
102	406 / 15	Danny Haggerty	1362 / 278	17.06
103	406 / 15	Danny Haggerty	1362 / 278	19.00
104	406 / 15.1	Danny E. Jr. & Lisa A. Haggerty	1497 / 995	2.02
105	406 / 13.3	Williard George Brown	1496 / 1170	0.58
106	406 / 13.2	Leonard C. Paugh	1524 / 1195	2.56
107	406 / 13	Leonard C. Paugh	1524 / 1195	2.12
108	406 / 14	Danny E. & Debra D. Haggerty	1061 / 11	4.00
109	406 / 127.1	Angela Renee Ricketts	1393 / 362	4.75
110	406 / 13.1	Angela Renee Ricketts	1408 / 44	4.50
111	386 / 127	Sherry Louise Ricketts	916 / 343	40.75

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 — 033 — 06009
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek QUADRANGLE: Top: Mount Clare Btm: West Milford
DISTRICT: Grant / Union COUNTY: Harrison
SURFACE OWNER: George & Rosanne Schoen ACREAGE: 69.06
ROYALTY OWNER: Willa Post Robey, et al ACREAGE: 78.20

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

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,240' TVD 23,716' MD

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

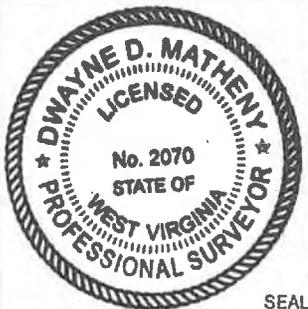
RECEIVED
Office of Oil and Gas
APR 14 2021
WV Department of Environmental Protection
LEASE NO. 05/28/2021

**HG Energy II
Appalachia, LLC
Well No. Schoen
1205 N-5H**

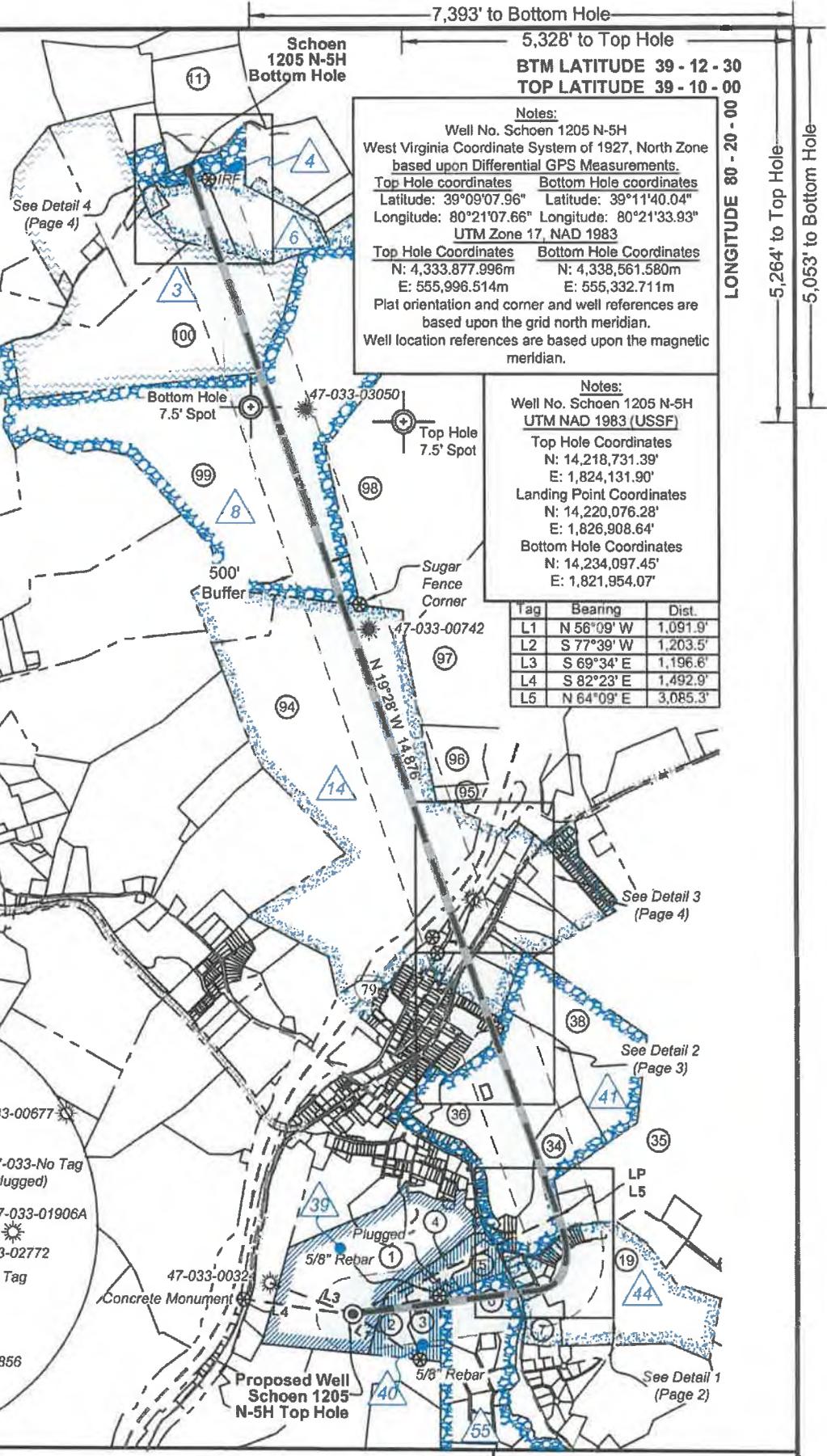
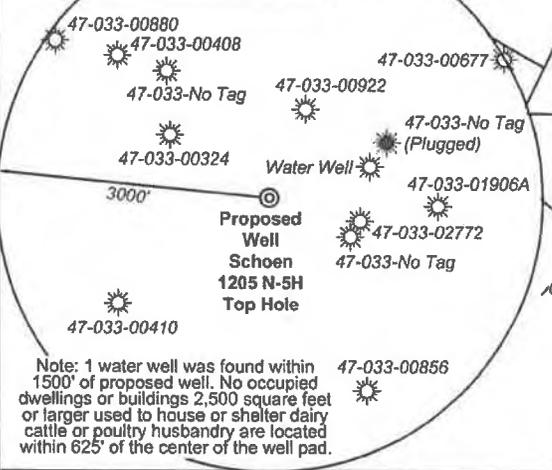


I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny
Dwayne D. Matheny, P.S. #070



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



Notes:
Well No. Schoen 1205 N-5H
West Virginia Coordinate System of 1927, North Zone based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°09'07.96" Latitude: 39°11'40.04"
Longitude: 80°21'07.66" Longitude: 80°21'33.93"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,333,877.996m N: 4,338,561.580m
E: 555,996.514m E: 555,332.711m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.

Notes:
Well No. Schoen 1205 N-5H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,218,731.39'
E: 1,824,131.90'
Landing Point Coordinates
N: 14,220,076.28'
E: 1,826,908.64'
Bottom Hole Coordinates
N: 14,234,097.45'
E: 1,821,954.07'

Tag	Bearing	Dist.
L1	N 56°09' W	1,091.9'
L2	S 77°39' W	1,203.5'
L3	S 69°34' E	1,196.6'
L4	S 82°23' E	1,492.9'
L5	N 64°09' E	3,085.3'

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

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

DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06009
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union
SURFACE OWNER: George & Rosanne Schoen
ROYALTY OWNER: Willa Post Robey, et al
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD

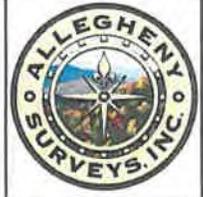
WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

RECEIVED
Office of Oil and Gas
APR 14 2021
Top: Mount Clare
QUADRANGLE: Btm: West Milford
COUNTY: Harrison
ACREAGE: 65.00
LEASE NOW WV Department of Environmental Protection ACREAGE: 05/28/2021

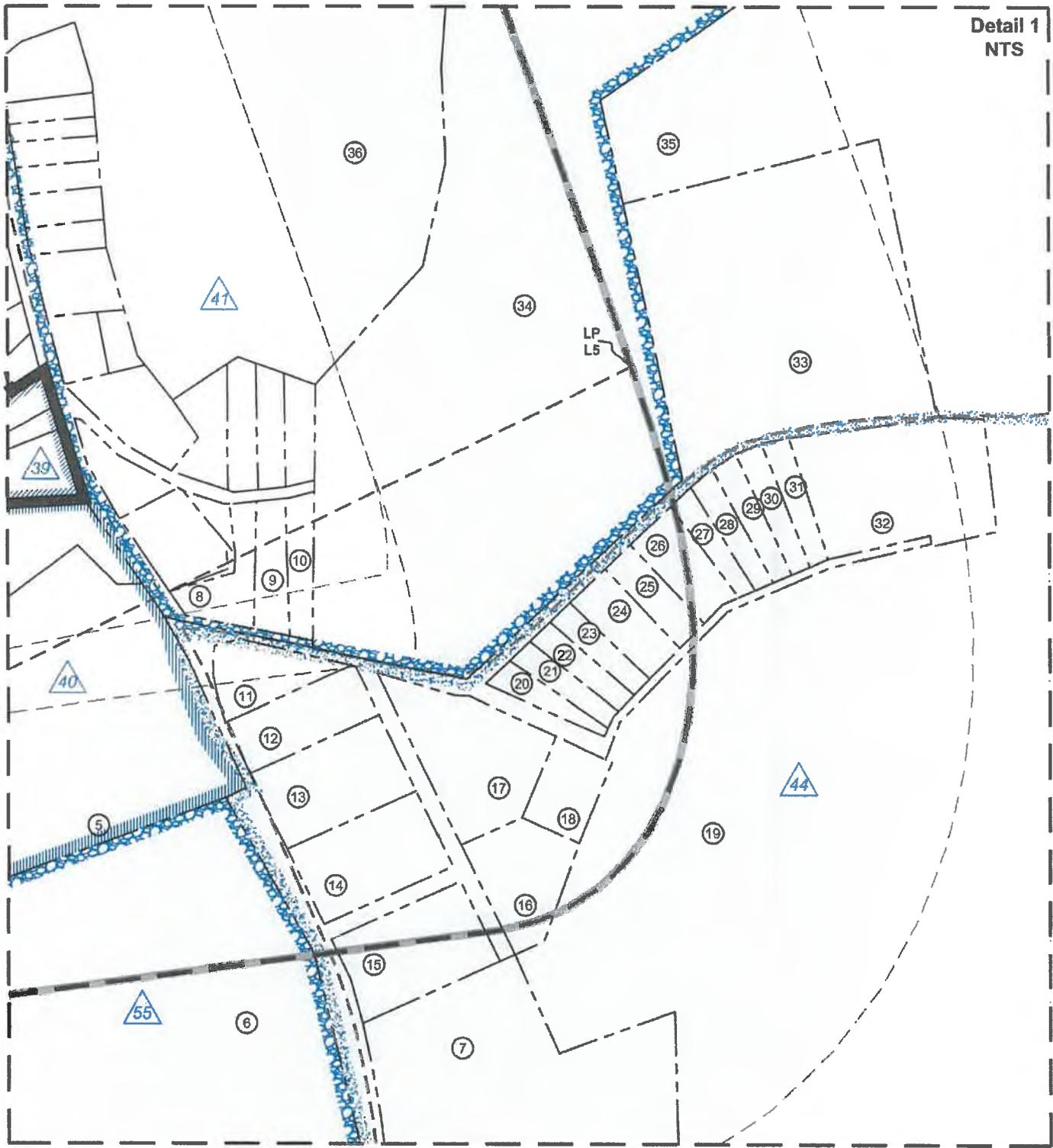
LONGITUDE 80 - 20 - 00
5,264' to Top Hole
5,053' to Bottom Hole

7,393' to Bottom Hole
5,328' to Top Hole
BTM LATITUDE 39 - 12 - 30
TOP LATITUDE 39 - 10 - 00

**HG Energy II
Appalachia, LLC
Well No. Schoen
1205 N-5H**



Detail 1
NTS



FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
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MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

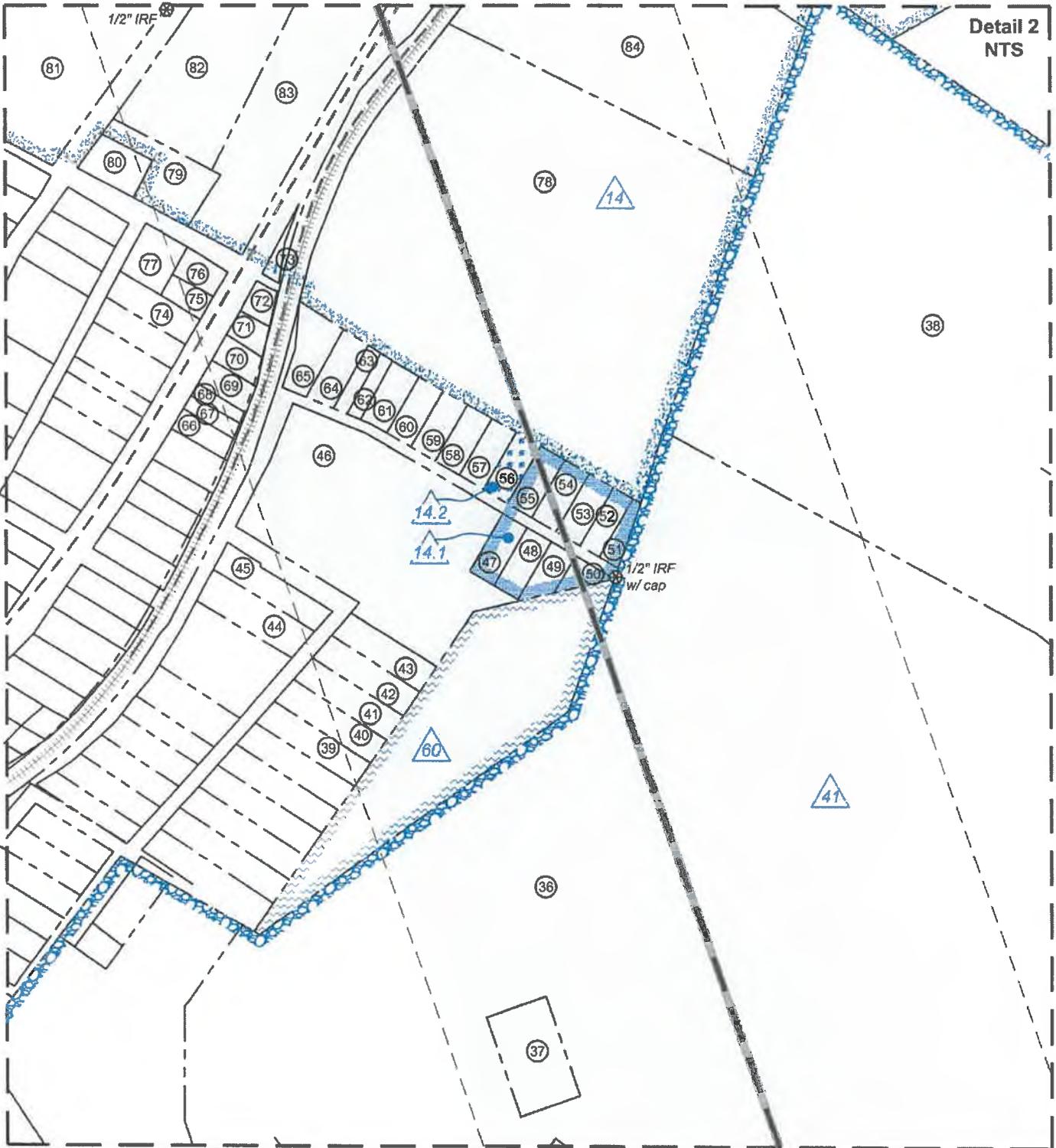
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
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STATE COUNTY PERMIT

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ROYALTY OWNER: Willa Post Robey, et al
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 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD

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APR 14 2021
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QUADRANGLE: _____
COUNTY: Harrison
ACREAGE: 65.00
ACREAGE: 05/28/2021

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



Detail 2
NTS

FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV



DATE: March 29 2021
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06009
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union

RECEIVED
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APR 14 2021
Top: Mount Clare
Btm: West Milford

SURFACE OWNER: George & Rosanne Schoen
ROYALTY OWNER: Willa Post Robey, et al

QUADRANGLE: COUNTY: Harrison
ACREAGE: 65.00

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE STIMULATION PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

LEASE NO: ACREAGE: 0.32
05/28/2021

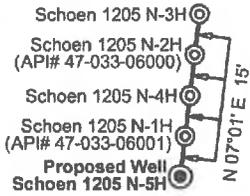
PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD 7,240' TVD

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

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

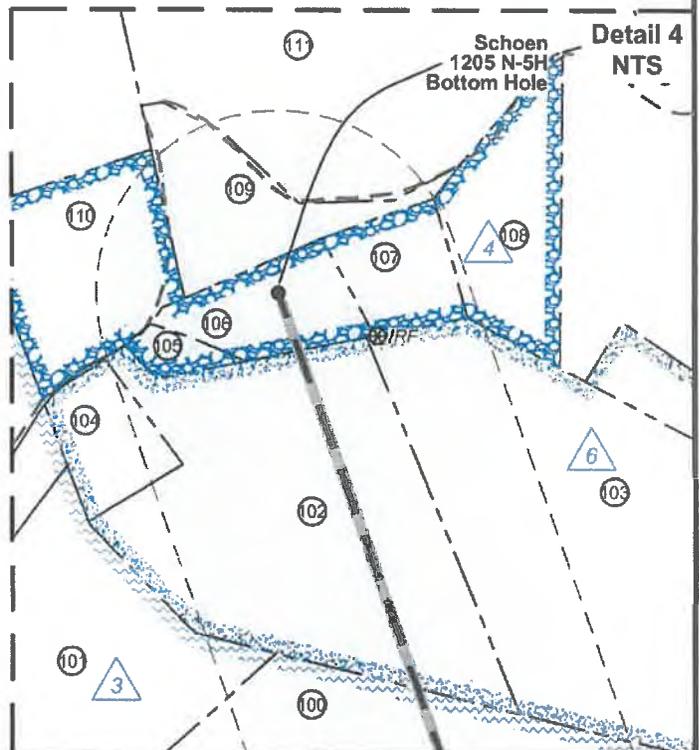
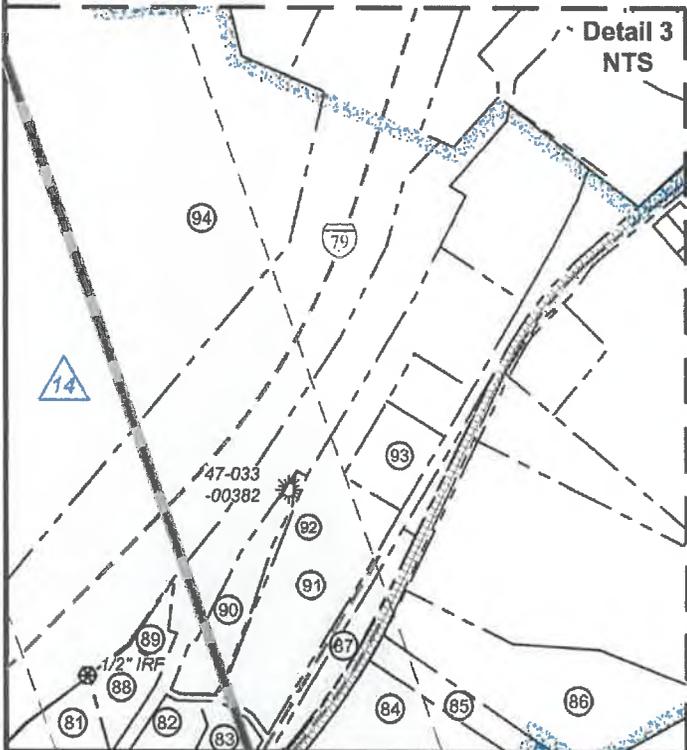
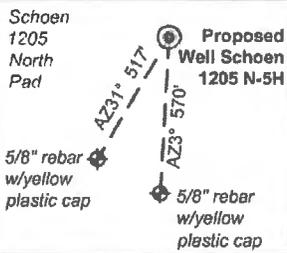


Wellhead Layout (NTS)



ID	Lease
3	Emory L. Stout, et ux
4	Cassie G. Smith, et al
6	Edna M. Swisher, et al
8	Porter Maxwell, et al
14	Mollie V. Bassell, et al
14.1	Charles D. Lesson
14.2	Brenda Joyce Cogar, et al
39	Willa Post Robey, et al
40	Charlotte C. Gerlach, et ux
41	D.L. Nutter, et ux
44	Milton S. Davis, et al
55	French S. Young, et ux, et al
60	Betty J. & Isaac H. Maxwell, III

**Well Location References
Not to Scale**



FILE NO: 32-36-G-19
DRAWING NO: Schoen 1205 N5H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter
PROVEN SOURCE OF ELEVATION:
CORS, Bridgeport, WV

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

DATE: March 29 20 21
OPERATOR'S WELL NO. Schoen 1205 N-5H
API WELL NO
47 - 033 - 06009
STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW

LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union

RECEIVED Office of Oil and Gas
QUADRANGLE: Top: Mount Clare Btm: West Milford
COUNTY: Harrison

SURFACE OWNER: George & Rosanne Schoen

APR 14 2021 ACREAGE: 65.00

ROYALTY OWNER: Willa Post Robey, et al

LEASE NO: ACREAGE: 05/28/2021

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 7,240' TVD 23,716' MD

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

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



No.	TM / Par	Owner	Bk / Pg	Ac.
1	447 / 2	George & Rosanne Schoen	1148 / 1059	65.00
2	447 / 3	George & Rosanne Schoen	1253 / 302	10.06
3	447 / 3.4	Stephen M & Kimberly Goff	1257 / 189	7.67
4	447 / 3.3	Charlotte C. Gerlach	1070 / 1041	6.10
5	447 / 3.2	Michael Tillman & Mary Hencke	1257 / 193	5.86
6	447 / 4.1	Joseph & Karen Bowers	1295 / 887	21.87
7	447 / 6.1	Michael & Charlotte Moses	1364 / 7	7.20
8	2105 / 51	Helen Irene Eakle Estate	--- / ---	---
9	2105 / 52	Virgil Lamb	1577 / 1012	0.33
10	2105 / 55	Rondal Lake	1415 / 288	0.23
11	2105 / 118	Church of God Trustees	1097 / 818	---
12	2105 / 119	Church of God Trustees	1097 / 818	---
13	2105 / 120	Church of God Trustees	1097 / 818	---
14	2105 / 121	Charles & Miltzie Reider	1646 / 958	0.88
15	2105 / 122	Janice Dean	1456 / 1011	0.99
16	2105 / 57	Thomas & Terri Hawkins	1558 / 1255	0.76
17	2105 / 56	Thomas & Terri Hawkins	1558 / 1255	1.41
18	2105 / 58	Thomas & Terri Hawkins	1558 / 1255	0.38
19	447 / 6	Thomas E. & Terri E. Hawkins	1558 / 1255	84.25
20	2105 / 59	Mary Ann Bowyer, et al	F1118 / 63	0.23
21	2105 / 60	Mary Ann Bowyer, et al	F118 / 63	0.22
22	2105 / 61	Lisa Hickman	1621 / 760	0.21
23	2105 / 62	Lisa Hickman	1621 / 760	0.20
24	2105 / 63	Lisa Hickman	1621 / 760	0.38
25	2105 / 64	David W. Stutler	1482 / 433	0.28
26	2105 / 65	Jean Riffle Estate	--- / ---	0.42
27	2105 / 67	Jean Riffle Estate	--- / ---	0.21
28	2105 / 68	Jean Riffle Estate	--- / ---	0.25
29	2105 / 69	Jean Riffle Estate	--- / ---	0.26
30	2105 / 70	Kevin R. Kolenda	1257 / 800	0.26
31	2105 / 71	Kevin R. Kolenda	1257 / 800	0.26
32	2105 / 73	Paul Wintners Estate	W201 / 472	1.53
33	427 / 28.1	Allen Scott Hall	1265 / 589	5.40
34	427 / 34	Worthy C. Hall	1577 / 626	27.00
35	427 / 28	Worthy C. Hall	1577 / 626	248.44
36	427 / 33	Isaac & Betty Maxwell	1539 / 141	72.00
37	427 / 33.1	Greater Harrison Co.	1424 / 1161	0.48
38	427 / 27	Worthy C. Hall	1577 / 626	51.75
39	2103 / 94	Candice S. Wheeler	W125 / 113	0.25
40	2103 / 88	Candice S. Wheeler	W125 / 113	0.24
41	2103 / 82	Candice S. Wheeler	W125 / 113	0.23
42	2103 / 75	Candice S. Wheeler	W125 / 113	0.22
43	2103 / 68	Candice S. Wheeler	W125 / 113	0.22
44	2103 / 74	Eugene N. & Linda S. Alkire	1131 / 636	0.23
45	2103 / 67	Charles Mellon Estate, et al	--- / ---	0.26
46	2103 / 37	Christian R. Grymes	1516 / 139	2.95
47	2103 / 38	Charles D. Lesson	1585 / 664	---
48	2103 / 39	Charles D. Lesson	1585 / 664	---
49	2103 / 40	Charles D. Lesson	1585 / 664	---
50	2103 / 41	Charles D. Lesson	1585 / 664	---
51	2103 / 26	Charles D. Lesson	1585 / 664	---
52	2103 / 25	Charles D. Lesson	1585 / 664	---
53	2103 / 24	Charles D. Lesson	1585 / 664	---
54	2103 / 23	Charles D. Lesson	1585 / 664	---
55	2103 / 22	Charles D. Lesson	1585 / 664	---
56	2103 / 21	Joshua & Harley Miller Cogar	W174 / 683	---

No.	TM / Par	Owner	Bk / Pg	Ac.
57	2103 / 20	Joshua & Harley Miller Cogar	W174 / 683	---
58	2103 / 19	Dennis W. & Rose M. Chamberlain	1335 / 911	---
59	2103 / 18	Dennis W. & Rose M. Chamberlain	1335 / 911	---
60	2103 / 17	Jonah E. Cogar	1432 / 493	---
61	2103 / 16	Jonah E. Cogar	1432 / 493	---
62	2103 / 15.1	Jonah E. Cogar	1432 / 493	---
63	2103 / 15	Eugene R. Smith Jr.	1329 / 532	---
64	2103 / 14	Eugene R. Smith Jr.	1329 / 532	---
65	2103 / 13	Drexal L. Mullen	W134 / 323	---
66	2103 / 51	Judith A. Corkrean	1148 / 474	0.11
67	2103 / 46	Judith A. Corkrean	1148 / 474	---
68	2103 / 46.1	Judith A. Corkrean	1148 / 474	---
69	2103 / 36	Judith A. Corkrean	1148 / 474	---
70	2103 / 31	Beverly A. Foster	1096 / 205	---
71	2103 / 12	Beverly A. Foster	1096 / 20	---
72	2103 / 7	Beverly A. Foster	1096 / 205	---
73	2103 / 2	Beverly A. Foster	1096 / 205	---
74	2103 / 30	Gregory A. Foster	1404 / 455	---
75	2103 / 11	Gregory A. & Beverly A. Foster	1256 / 109	---
76	2103 / 6	Gregory A. & Beverly A. Foster	1256 / 109	---
77	2103 / 11.1	Joshua D. Messenger	1492 / 197	0.24
78	427 / 13	Dennis & Rose Chamberlain	1321 / 102	9.25
79	427 / 1.12	Jerry & Myrna Kincaid	1484 / 1045	0.30
80	2103 / 1	Jerry & Myrna Kincaid	1484 / 1045	0.19
81	427 / 1.6	Michel M. Lewis	1598 / 301	2.45
82	427 / 1.7	Apostolic Christian	1598 / 301	3.83
83	427 / 1.13	Apostolic Christian	1598 / 296	1.80
84	427 / 14	Debra & David Shriver	1218 / 767	4.19
85	427 / 15	Reid & Vicki Smith	1506 / 332	0.63
86	427 / 16	Reid & Vicy Smith	1336 / 710	4.21
87	427 / 1.10	Charles & Nancy Shock	1299 / 472	0.80
88	427 / 1.5	Michel M. Lewis	1444 / 142	0.76
89	427 / 1.4	Walter & David Nutter	0.25	0.25
90	427 / 1.8	Apostolic Christian	1466 / 825	1.41
91	427 / 1.9	Charles & Nancy Shock	1368 / 201	5.96
92	427 / 1.14	Apostolic Christian	1596 / 475	0.15
93	427 / 1.2	Mary Jane Lewis	1452 / 1191	1.00
94	427 / 1	Walter E. Nutter & David H. Nutter	154 / 301	228.20
95	427 / 3	Walter Nutter	W154 / 301	8.00
96	427 / 48	Walter E. & David H. Nutter	W154 / 301	33.00
97	427 / 61	Walter E. & David H. Nutter	W154 / 301	116.16
98	407 / 25	Richard D. Mendez	W168 / 424	192.71
99	406 / 25	Isaac H. III & Betty Jean Maxwell	1509/934	255.20
100	406 / 27	James Stout	W161 / 306	43.50
101	406 / 11	Mildred Stout	1138 / 993	44.80
102	406 / 15	Danny Haggerty	1362 / 278	17.06
103	406 / 15	Danny Haggerty	1362 / 278	19.00
104	406 / 15.1	Danny E. Jr. & Lisa A. Haggerty	1497 / 995	2.02
105	406 / 13.3	Williard George Brown	1496 / 1170	0.58
106	406 / 13.2	Leonard C. Paugh	1524 / 1195	2.56
107	406 / 13	Leonard C. Paugh	1524 / 1195	2.12
108	406 / 14	Danny E. & Debra D. Haggerty	1061 / 11	4.00
109	406 / 127.1	Angela Renee Ricketts	1393 / 362	4.75
110	406 / 13.1	Angela Renee Ricketts	1408 / 44	4.50
111	386 / 127	Sherry Louise Ricketts	916 / 343	40.75

FILE NO: 32-36-G-19
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DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

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STATE COUNTY PERMIT

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(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1,407.3' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union
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PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
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 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,716' MD

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DESIGNATED AGENT: Diane C. White
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DEED BOOK	PAGE
900	269
903	179
1136	250
51	795
58	362
1522	33
	OF
1524	491
1543	1235
1576	125
1584	942
1600	692
WV505	
	OF
1601	581
	OF
1621	1295
1108	569
1140	674
1110	890
1200	1100
WV505	
1495	314
1671	74
147	297
903	179
1136	250
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1522	33
	OF
1524	491
1543	1235
1576	125
1584	942
1600	692
WV505	
	OF
1601	581
	OF
1621	1295
LEWIS 736	220

WW-6A1
(5/13)

Operator's Well No. Schoen 1205 N-5H

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

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

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

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

See Attached Sheets

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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

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

05/28/2021

RECEIVED
Office of Oil and Gas

Page 1 of _____

APR 14 2021

WV Department of
Environmental Protection

APR 14 2021

44	LC043728	12- 0447-0006-0000 13-0447-0006-0001 13-2105-0056-0000 13- 2105-0057-0000 13-2105-0058-0000 13-2105-0060-0000 13-2105-0061-0000 13-2105-0063-0000 13-2105-0064-0000 13-2105-0065-0000 13-2105-0067-0000 13-2105-0069-0000 13-2105-0071-0000 13-2105-0073-0000, 13-2105-0118-0000 THRU 13- 2105-0122-0000 p/o 12-0427-0028-0000	Q100789000	MILTON S. DAVIS AND MARY I. DAVIS	OLANDUS WEST	WV Department of Environmental Protection	NOT LESS THAN 1/8	156	75				
				OLANDUS WEST	JNO. J. P. O'BRIEN	GRASSELLI CHEMICAL COMPANY	ASSIGNMENT	155	409				
				JNO. J. P. O'BRIEN	GRASSELLI CHEMICAL COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	158	490				
				GRASSELLI CHEMICAL COMPANY	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	ASSIGNMENT	381	163				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONFIRMATORY DEED	903	179				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	ASSIGNMENT	1136	250				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	51	795				
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	1522	33					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FARMOUT AGREEMENT	1524	491					
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	1576	125					
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584	942					
				NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600	692					
				DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS						
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295					
				41	LC008511	12-0427-0027-0000 12-0427-0033-0000 12-0427-0033-0001 12- 0427-0034-0000 13-2105-0001-0000 13-2105-0002-0000 13- 2105-0002-0001 13-2105-0002-0002 13-2105-0004-0000 THRU 13-2105-0012-0000 13-2105-0021-0000 THRU 13-2105-0023-0000 13-2105-0041-0000 THRU 13-2105-0055-000 13-2105-0046-0001 13-2105-0116-0000 13-2105-0117-0000 13-2105-0117-0001 13-2103-0141-0000 13-2103-0148-0000 13-2103-0162-0000 13-2103-0176-0000 13-2103-0176-0001 13-2103-0176-0002 13-2103-0174-0000 13-2103-0175-0000 13-2104-0035-0000	Q100304000	D. L. NUTTER AND MARGARET R. NUTTER, HIS WIFE	SOUTH PENN OIL COMPANY		NOT LESS THAN 1/8	121	172
								SOUTH PENN OIL COMPANY	HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	ASSIGNMENT	204	402
HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONFIRMATORY DEED					903	179				
CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	ASSIGNMENT					1136	250				
CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE					51	795				
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE					58	362				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	1522					33					
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FARMOUT AGREEMENT	1524					491					
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543					1235					
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	1576					125					
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1584					942					
NOBLE ENERGY, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1600					692					
DOMINION TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	MERGER/NAME CHANGE	WVSOS										
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601					581					
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621					1295					
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621					1295					
14	LC066783	12-0427-0001-0000 et al	Q100886000					MOLLIE V. BASSEL, WIDOW; WALTER D. NUTTER AND DORA H. NUTTER, HIS WIFE; DAVID H. NUTTER; BENJAMIN L. NUTTE;, F. F. EARP AND HETTIE EARP, HIS WIFE	HOPE NATURAL GAS COMPANY		NOT LESS THAN 1/8	780	586
								HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179	
								CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250	
								CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795	
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	1522	33					
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235					
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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	WV505					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295				
14.1	HGII01531	13-2013-0022-0000	HGII01531	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1292				
14.3	HGII01529	13-2013-0023-0000	HGII01529	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1294				
14.4	HGII01534	13-2013-0024-0000	HGII01534	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1296				
14.5	HGII01537	13-2013-0041-0000	HGII01537	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1298				
14.6	HGII01536	13-2013-0040-0000	HGII01536	CHARLES D LEESON	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	1300				
14.2	HGII01541	13-2013-0021-0000	HGII01541	BRENDA JOYCE COGAR, ET AL	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1709	314				
8	LC052223	12-0406-0021-0000 12-0406-0021-0001 12-0406-0021-0002 12-0406-0021-0003 12-0406-0021-0004 12-0406-0021-0005 12-0406-0021-0006 12-0406-0021-0007 12-0406-0021-0008 12-0406-0025-0000 12-0406-0028-0000 and 12-406A-0001-0000 through 12-406A-0041-0000	Q101129000	PORTER MAXWELL AND BERTHA B. MAXWELL, HUSBAND AND WIFE; AND W. BRENT MAXWELL AND LILLIE J. MAXWELL, HUSBAND AND WIFE	JOHN C. CHIDESTER	NOT LESS THAN 1/8	175	450				
				JOHN CHIDESTER	THE PHILADELPHIA COMPANY OF WEST VIRGINIA	ASSIGNMENT	UNRECORDED					
				THE PHILADELPHIA COMPANY OF WEST VIRGINIA	PITTSBURGH AND WEST VIRGINIA GAS COMPANY	ASSIGNMENT	236	111				
				PITTSBURGH AND WEST VIRGINIA GAS COMPANY	HOPE NATURAL GAS COMPANY	ASSIGNMENT	504	353				
				HOPE NATURAL GAS COMPANY	CONSOLIDATED GAS SUPPLY CORPORATION	CONFIRMATORY DEED	903	179				
				CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250				
				CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795				
				CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58	362				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM OF FARMOUT AGREEMENT	1522	33				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1524	491				
				CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543	1235				
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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	WV505					
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581				
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295				
				3	LC071305	12-0406-0010-0001 12-0406-0011-0000 12-0406-0012-0001 12-0406-0027-0000	Q100508000	EMORY L. STOUT AND ELZIA P. STOUT, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	985	94
								CONSOLIDATED GAS SUPPLY CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	ASSIGNMENT	1136	250
								CONSOLIDATED GAS TRANSMISSION CORPORATION	CNG TRANSMISSION CORPORATION	MERGER/NAME CHANGE	51	795
CNG TRANSMISSION CORPORATION	DOMINION TRANSMISSION, INC.	MERGER/NAME CHANGE	58					362				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	MEMORANDUM FARMOUT AGREEMENT	1522					33				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1524					491				
CNX GAS COMPANY LLC	NOBLE ENERGY, INC.	ASSIGNMENT	1543					1235				
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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	WV505									
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601					581				
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295								
				EDNA M. SWISHER, WIDOW; CLARA VAN HORN, WIDOW; ROBERT M. MILEY AND RUTH MILEY, HIS WIFE; AND G. CHESTER MILEY AND GLADYS MILEY, HIS WIFE	CONSOLIDATED GAS SUPPLY CORPORATION	NOT LESS THAN 1/8	988	223				

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6	LC071374	12-0406-0015-0000 12-0406-0015-0001 p/o 12-0406-0025-0000 12-0407-0002-0000	Q100581000	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.	ASSIGNMENT	1543	1235
				DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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	WV505	
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601	581
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621	1295
				DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1637	1081
				4	LC071721	12-0406-0013-0000 12-0406-0013-0001 12-0406-0013-0002 12-0406-0013-0003 12-0406-0014-0000	Q100711000	CASSIE G. SMITH, WIDOW; AND NANCY L. HARDY, DIVORCED
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.	ASSIGNMENT	1543					1235
DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ASSIGNMENT	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	WV505					
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1601					581
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	1621					1295
DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	ASSIGNMENT	1707					883
60	N/A	p/o 12-0427-0033-0000	N/A	ISAAC H. MAXWELL III & BETTY J MAXWELL	HG ENERGY II APPALACHIA, LLC	NOT LESS THAN 1/8	1707	883

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

March 30, 2021

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

RE: Drilling Under Roads – Schoen 1205 N-5H
Grant District, Harrison County
West Virginia

Dear Ms. Kees -

HG Energy II Appalachia, LLC, is submitting the attached application for a new well work permit for the Schoen 1205 well pad. As an authorized representative, I certify HG Energy II Appalachia, LLC, has the right to drill, stimulate, extract, produce and market the oil, gas or condensate for all leases through which the Schoen 1205 laterals will drill through including any and all roads crossed under as identified on the attached survey plat.

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

Very truly yours,

Diane White

Diane C. White

Enclosures

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05/28/2021

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

Date of Notice Certification: 02/15/2021

API No. 47- 033 - 06009 H6A
Operator's Well No. Schoen 1205 N-5H
Well Pad Name: Schoen Well Pad

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>555996.5</u>
County: <u>Harrison</u>	Northing: <u>4333878.0</u>
District: <u>Grant</u>	Public Road Access: <u>McWhorter Road</u>
Quadrangle: <u>Mount Clare</u>	Generally used farm name: <u>Schoen</u>
Watershed: <u>Middle West Fork Creek</u>	

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

<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 type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input checked="" 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>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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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.

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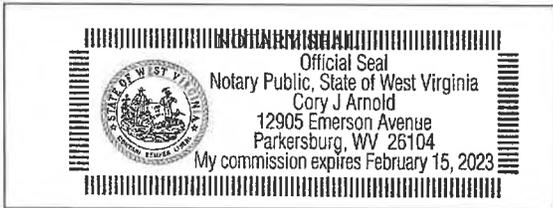
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Certification of Notice is hereby given:

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

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



Subscribed and sworn before me this 15th day of February, 2021.

Cory J. Arnold Notary Public

My Commission Expires 2-15-2023

Oil and Gas Privacy Notice:

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

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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: 11.23.20 Date Permit Application Filed: 11/25/20

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: George & Rosanne Schoen
 Address: PO Box 158
 Lost Creek, WV 26385
 Name: _____
 Address: _____

COAL OWNER OR LESSEE
 Name: _____
 Address: _____

SURFACE OWNER(s) (Road and/or Other Disturbance)
 Name: Thomas Young
 Address: 4856 SW 95th
 Gainesville, FL 32608
 Name: Joseph Queen
 Address: P. O. Box 531
 Lost Creek, WV 26385

COAL OPERATOR
 Name: _____
 Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
 Name: _____
 Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
 Name: Vera & Oral Haught
 Address: 400 Justice Avenue
 Logan, WV 25601

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

*Please attach additional forms if necessary

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05/28/2021
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- 033 06009
OPERATOR WELL NO. Schoen 1205 N-1H to S-10H
Well Pad Name: Schoen 1205

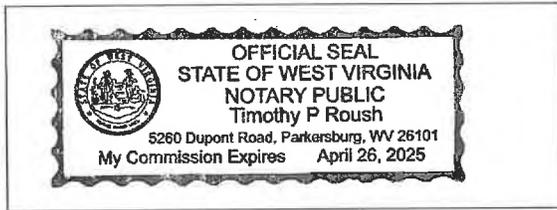
Notice is hereby given by:

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

Address: 5260 Dupont Road
Parkersburg, WV 26101
Facsimile: 304-863-2172

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.



Subscribed and sworn before me this 1st day of September, 2020.

[Handwritten Signature]

Notary Public

My Commission Expires 4/26/2025

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Page 1 Continued

Schoen 1205 S-7H

Surface Owner of Water Well and/or Water Purveyors to be Noticed:

Marilyn Gaines
1191 McWhorter Road
Lost Creek, WV 26385

Keith & Diana Bramel
124 Tree Frog Lane
Lost Creek, WV 26385

Stephen & Kimberly Goff
412 Hill Top Drive
Lost Creek, WV 26385

Surface Owner (s) (Road and/or Other Disturbance)

Charles and Franklin Sutton
801 Worthington Drive
Bridgeport, WV 26330

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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 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 permit decision and a list of persons qualified to test water.

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

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

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

Well Location Restrictions

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

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Well Pad Name: Schoen 1205

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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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.**

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Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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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: 12/28/2020 **Date Permit Application Filed:** 01/11/2021

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: George & Rosanne Schoen
Address: PO Box 158
Lost Creek, WV 26385

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:	555986.976
County:	Harrison		Northing:	4333800.330
District:	Grant	Public Road Access:	McWhorter Road / SR19	
Quadrangle:	Mount Clare	Generally used farm name:	Schoen	
Watershed:	Middle West Fork Creek			

This Notice Shall Include:

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

Notice is hereby given by:

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

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

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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: 12/29/2020 **Date Permit Application Filed:** 01/11/2021

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: George & Rosanne Schoen	Name: _____
Address: PO Box 158	Address: _____
Lost Creek, WV 26385	

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: 555986.976
County: Harrison	Northing: 4333800.330
District: Grant	Public Road Access: McWhorter Road / SR 19
Quadrangle: Mount Clare 7.5'	Generally used farm name: Schoen
Watershed: Middle West Fork 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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
Division of Highways

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

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

September 3, 2020

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

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

Subject: DOH Permit for the Schoen 1205 Pad, Harrison County
Schoen N-5H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2020-0615 which has been issued to HG Energy LLC for access to the State Road for a well site located off Harrison County Route 25 SLS.

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

Very Truly Yours,

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

Cc: Jerod Duellley
HG Energy LLC
CH, OM, D-4
File

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HG Energy II Appalachia, LLC
List of Frac Additives by Chemical Name and CAS #
Schoen 1205 Well Pad (N-1H to S-10H)

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

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		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	
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		10222-01-2
SCALE CLEAR SI 112	107-21-1	
PROBREAK 4	Mixture	57-50-1
		107-21-1
Sulfamic Acid	5329-14-6	
PRO - Flow - 102-N	Mixture	67-63-0
		68439-45-2
		2687-96-9
PROGEL - 4	9000-30-0	

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		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
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		2687-96-9
PROGEL - 4	9000-30-0	

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CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS

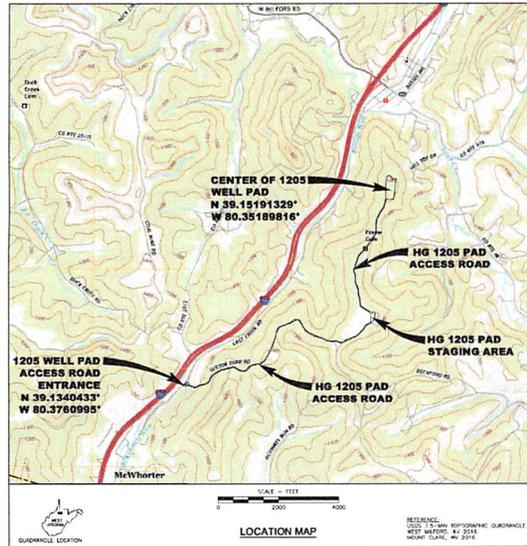
HG 1205 WELL PAD

GRANT DISTRICT HARRISON COUNTY WEST VIRGINIA

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

CONSTRUCTION SEQUENCE

- 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.
- Site access - This is the first land-disturbance activity to take place at the site and should provide BMPs to minimize accelerated erosion and sedimentation from the following areas: entrance to the site, construction routes, and areas designated for equipment or other use at the site including parking, stockpiles.
- Sediment Barriers - Install perimeter BMPs after the construction site is accessed, keeping associated clearing and grubbing limited to only that amount required for installing perimeter BMPs.
- Land Clearing and Grading - Implement clearing and grading only after all downslope E&S BMPs have been constructed and stabilized.
- Surface Stabilization - Apply temporary or permanent stabilization measures immediately to any disturbed areas where work has reached final grade, has been delayed or otherwise temporarily suspended.
- Construction of Buildings, Utilities, and Paving - During construction, install and maintain any additional erosion and sediment control BMPs, and implement any structural post construction stormwater BMPs that may be required.
- Upon completion of pad grading, compact the pad to grade and begin placement of pad soil cement.
- Final Stabilization, Topping, 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
5250 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 - General Option			
	Out	In	Stockpile
1205 Well Pad	11,860	12,120	260
1205 Well Pad Access Road	12,470	12,230	474
1205 Well Pad Staging Area	340	330	10
Totals	24,710	23,770	1,434
Est. Swell Factor	(20%)		296
Total Site Disturbance			1,730
Striped Topsoil (Limits of Earthwork)			9,180
Est. Swell Factor	(20%)		1,839
Est. Topsoil Stockpile Volume (Loose CY)			11,021
Minimum Total Stockpile Capacity Required (CY)			12,751

- Notes:
- Material balance for est. gross net back quantities only.
 - Topsoil est. volumes based on 6" depth average depth.
 - Material balance and aggregate quantities based on estimates and may reflect non-availability of actual quantities.
 - Estimates do not reflect contractor pay volumes.

Estimated Gravel Quantities			
	Pad 1205 Access Road	Pad 1205 Staging Area	1205 Well Pad TOTAL
of the Gravel Material	10,600	3,550	20,405
of them at 10% Over Run (in)	1,410	245	1,480
Estimated Pad Access Road Filter Stock Length (L.F.)			6,239
Estimated Staging Area Pad Filter Stock Length (L.F.)			900
Estimated Well Pad Filter Stock Length (L.F.)			1,115
TOTAL Estimated Filter Stock Length (L.F.)			8,354
TOTAL Estimated Filter Stock Length (L.F.)			280
Estimated Pad Access Road Limit of Disturbance (Acres)			10,523
Estimated Staging Area Pad Limit of Disturbance (Acres)			1,891
Estimated 1205 Well Pad Limit of Disturbance (Acres)			9,099
TOTAL Estimated Limit of Disturbance (Acres)			20,813
Well Pad Final Area Construction Elevation (Ft.)			1407.04
Well Area Subsoil Elevation (Top of Soil Control Subsoil) (Ft.)			1407.08
Well Area Surface Elevation (Ft.)			1407.25

WELL #	LAT.	LONG.
N-3H	N 39.1524686	W 80.3518727
N-2H	N 39.1524277	W 80.3518782
N-4H	N 39.1523697	W 80.3518638
N-1H	N 39.1523457	W 80.3518893
N-5H	N 39.1523047	W 80.3518949
S-6H	N 39.1518447	W 80.3520485
S-7H	N 39.1516039	W 80.3520554
S-10H	N 39.1515630	W 80.3520622
S-8H	N 39.1515222	W 80.3520690
S-9H	N 39.1514813	W 80.3520758

WELL ELEVATIONS 1407.25
UTM83-17F

	LATITUDE	LONGITUDE
1205 WELL PAD ACCESS ROAD ENTRANCE	N 39.1340433°	W 80.3760995°

RECORD OWNER	RECORD LOT #	RECORD AREA OF LOT	AREA WITHIN LOD
INTERSTATE 79 RIGHT OF WAY	N/A	N/A	0.704
FRANKLIN L. SUTTON	17-12-0466-0014-0002	39.4314	0.498
CHARLES R. SUTTON	17-12-0466-0015-0000	11.3466	0.532
FRANKLIN L. SUTTON	17-12-0466-0016-0000	22.3753	1.391
CHARLES R. SUTTON	17-12-0466-0017-0000	37.5166	3.008
FRANKLIN L. SUTTON	17-12-0446-0047-0000	25.9586	1.399
CHARLES R. SUTTON	17-12-0446-0048-0000	86.5040	3.008
CHARLES R. SUTTON	17-12-0466-0019-0000	62.7575	0.604
JOSEPH C. QUEEN	17-12-0447-0043-0001	16.9336	2.442
JOSEPH C. QUEEN	17-12-0447-0032-0000	35.5669	2.162
THOMAS K. YOUNG	17-12-0446-0029-0000	73.2764	6.570
GEORGE M. & ROSANNE SCHOEN	17-12-0447-0002-0000	71.2564	7.792
TOTAL LIMIT OF DISTURBANCE			29.813 AC

APPROVED
WVDEP OOG
12/1/2020

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REVISION	DATE	DESCRIPTION
1	08/17/2020	QUANTITY UPDATE AND CHANNEL MODIFICATIONS
2	08/27/2020	CLIENT REVISIONS
3	09/18/2020	REVISED PER WVDEP COMMENTS
4	10/28/2020	REVISED PER CLIENT COMMENTS
5	11/17/2020	CLIENT WELL REVISIONS
6	11/20/2020	REVISED PER WVDEP COMMENTS



TITLE SHEET
HG 1205 PAD
GRANT DISTRICT
HARRISON COUNTY, WEST VIRGINIA

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

WEST VIRGINIA 811 CALL BEFORE YOU DIG! Dial 811 or 800.245.4848

1. SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, IDENTIFYING, AND MARKING AS NECESSARY TO ENSURE CONTINUAL SERVICE.

APPROVED MFP 03/31/2020
CHECKED CAC 03/30/2020
DRAWN MFP 03/24/2020
PROJECT No. 4000-PA007916
DRAWING NUMBER
PA007916-001
SHEET 1

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

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