



 west virginia department of environmental protection

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

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

Thursday, January 10, 2019
 WELL WORK PERMIT
 Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC
 5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for GOODNIGHT 1402 N-3H
 47-085-10375-00-00

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: GOODNIGHT 1402 N-3H
 Farm Name: KENNETH PAUL GOODNIGHT
 U.S. WELL NUMBER: 47-085-10375-00-00
 Horizontal 6A New Drill
 Date Issued: 1/10/2019



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

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

DATE: November 26, 2018
ORDER NO.: 2018-W-11

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 II Appalachia, 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 Road Parkersburg, WV 26101.
3. On September 5, 2018 HG submitted a well work permit application identified as API# 47-085-10374. The proposed well is to be located on the Goodnight 1409 Pad in Murphy District of Ritchie County, West Virginia.
4. On September 5, 2018 HG requested a waiver for Wetlands JB and C 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# 47-085-10374.

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.”

ORDER

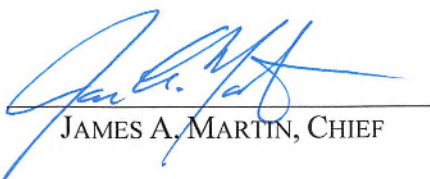
West Virginia Code §22-6A-12(b) requires, in part, that “no well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland. The Office of Oil and Gas grants the request for a waiver for the Wetlands JB and C from well location restriction requirements in W. Va. Code §22-6A-12(b) for the well work permit application identified as API# 47-085-10374. The Office of Oil and Gas hereby **ORDERS** that HG shall meet the following site construction and operational requirements for the Goodnight 1409 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 JB and C shall have triple stacked twelve inch (12”) compost filter sock to prevent sediment from reaching the wetland. This along with rip-rap level spreaders, temporary and permanent vegetative cover will prevent sediment from reaching the wetland.
- 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.

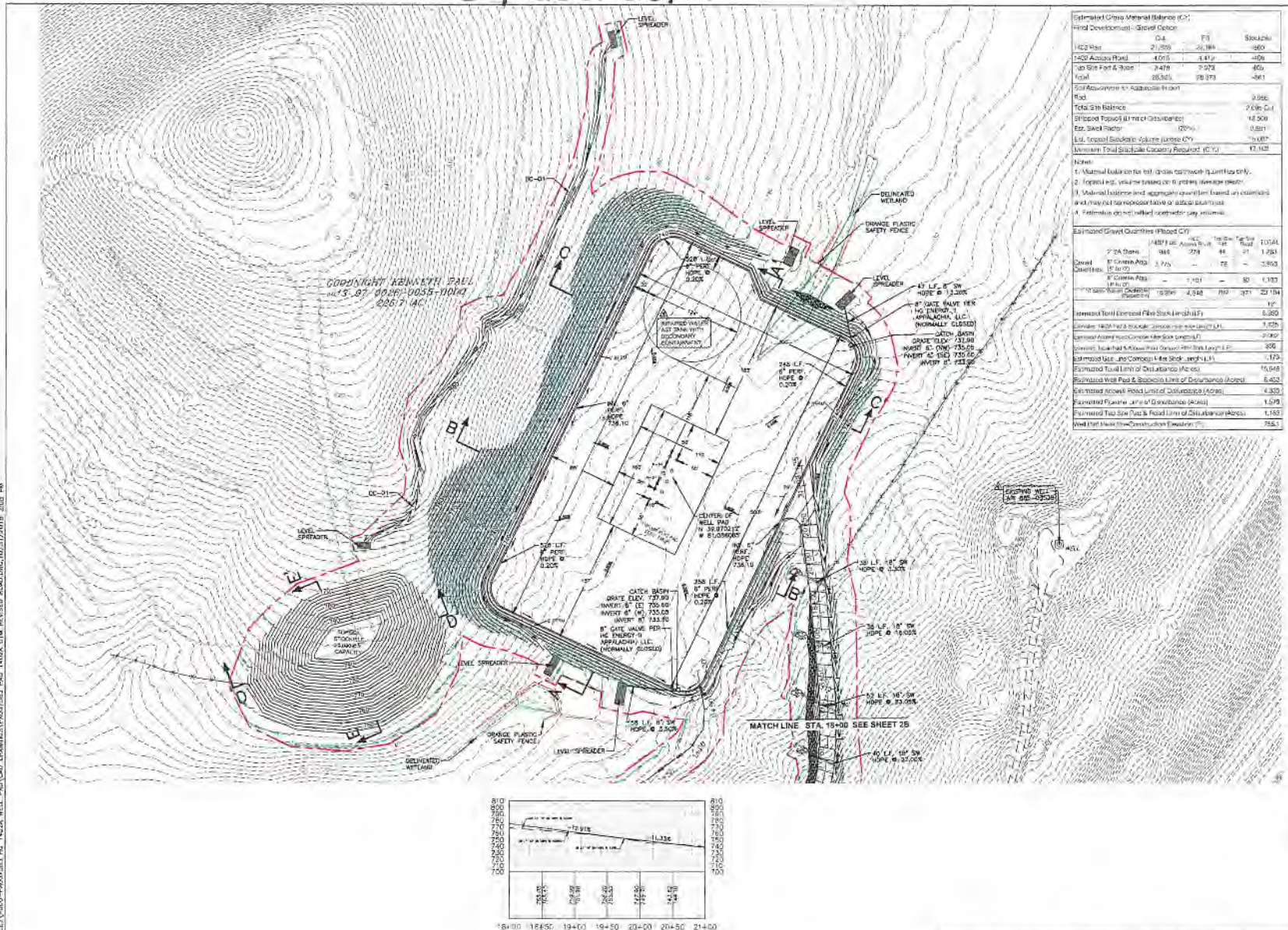
Thus ORDERED, the 26th day of November, 2018.

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

Attachment 1



Estimated Gross Material Balance (CY)

Item	Q.A.	F.I.	Stockpile
Topsoil	21,350	2,174	400
Topsoil (Area) (CY)	4,015	1,817	400
Topsoil (Volume) (CY)	3,478	3,272	400
Total	38,825	78,173	400

Total Site Balance: 2,100 CY
 Estimated Topsoil (at end of construction): 14,300
 Topsoil (Volume): 1,817
 Topsoil (Area) (CY): 3,478
 Estimated Total Stockpile Volume (CY): 17,102

Estimated Gravel Quantities (Paved City)

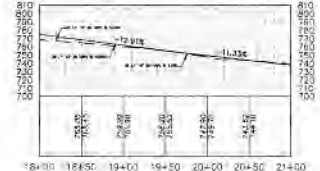
Item	Q.A.	F.I.	Stockpile
Gravel	1,175	75	3,300
Gravel (Volume) (CY)	1,101	80	3,300
Gravel (Area) (CY)	4,348	371	22,174
Total	5,449	451	25,474

Estimated Gravel (at end of construction): 1,101
 Estimated Gravel (Volume): 4,348
 Estimated Gravel (Area): 371
 Estimated Total Gravel (CY): 5,449

LEGEND

	EROSION CONTROL STRUCTURE
	LEVEL SPREADER
	DRAINAGE PLASTIC SAFETY FENCE
	WETLAND
	PROPOSED GAS PIPELINE
	PROPOSED UTILITY LINE
	PROPOSED ROAD RIGHT-OF-WAY
	PROPOSED UTILITY RIGHT-OF-WAY
	PROPOSED STORMWATER RIGHT-OF-WAY
	PROPOSED EROSION CONTROL STRUCTURE
	PROPOSED LEVEL SPREADER
	PROPOSED DRAINAGE PLASTIC SAFETY FENCE
	PROPOSED WETLAND
	PROPOSED PROPOSED GAS PIPELINE
	PROPOSED PROPOSED UTILITY LINE
	PROPOSED PROPOSED ROAD RIGHT-OF-WAY
	PROPOSED PROPOSED UTILITY RIGHT-OF-WAY
	PROPOSED PROPOSED STORMWATER RIGHT-OF-WAY

- NOTES:
1. EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 2. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
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 4. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 5. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 6. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 7. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 8. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 9. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.
 10. ALL EROSION CONTROL STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSION CONTROL DISTRICTS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO PREVENT SOIL EROSION AND TO PREVENT SOIL POLLUTION.



SOURCE: FILED: 4/20/2018 10:00 AM, UTA, WEL, P&C, CAD, ERM, ENVIRONMENTAL, PAID, MGA, UTM, REVISED: 2018/04/20/10:00 AM, 2018, RW

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

APPROVED: MSP 08/15/2018
 CHECKED: WES 08/29/2018
 DRAWING NUMBER: PA00758E-001
 SHEET: 7A

REVISIONS:

NO.	DATE	DESCRIPTION
1	8/15/18	ADJUSTMENTS TO WEL PAD & ACCESS ROAD SURFACING DETAILS
2	8/23/18	REVISED DRAINAGE LOCATION & LIMITS OF DISTURBANCE
3	9/11/18	REVISED WEL SURFACING
4	10/22/18	REVISED WEL SURFACING

SCALE: 1" = 20'

20458
 STATE OF WEST VIRGINIA
 PROFESSIONAL ENGINEER
 EXPIRES 12/31/2020

SITE DEVELOPMENT PLAN WITH EROSION AND SEDIMENTATION CONTROLS HG 1402 PAD & TAP SITE MURPHY DISTRICT RITCHIE COUNTY, WEST VIRGINIA

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

111 MAIN COURT, PITTSBURGH, PA 15202
 412-722-1222

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

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

Well Operator: HG Energy II Appalachia, LLCWell Number: Goodnight 1402 N-2H Well Pad Name: HG 1402 PadCounty, District, Quadrangle of Well Location: Ritchie County, Murphy District, Smithville Quad

Answer the questions below to request a waiver from West Virginia Department of Environmental Protection for any wetlands or perennial streams which lie within one hundred feet of proposed project Limit of Disturbance (LOD), which includes any erosion and sediment control devices to be used.

This waiver shall be requested pursuant to Chapter 22 Article 6A Section 12 of West Virginia Code, which states:

§22-6A-12(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.

§22-6A-12(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.

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _ _ _ _ _

Answer in the space provided, or use additional pages as necessary to fully answer the questions below:

- 1. Describe the proposed project location, including unique identifying names of all wetlands, and the names of perennial streams for which the waiver is sought.**

The project lies south of SR47, (Staunton Turnpike).

Wetlands for which the waiver is sought include the Wetland JB and Wetland C.

- 2. Justify the proposed activity by describing alternatives to this project that were considered.**

- a. Include a No-Action Alternative as to show "the future without the project"
- b. Location Alternatives must be shown
- c. Must demonstrate why a one hundred foot buffer cannot be maintained
- d. Describe how the proposed project is the least environmentally damaging practicable alternative

a. The No-Action Alternative for this site is the HG 1402 well pad not being constructed. This results in HG not utilizing acquired assets, and landowners not receiving anticipated compensation for leased land.

b. See attached Figure 1. Location to Northwest was evaluated, but was determined as having insufficient size and topography for required HG 1402 well pad sizing. This location would also involve excessive tree removal.

c. One hundred foot buffer to wetlands North and South of well pad cannot be maintained due to construction limits required to construct the HG 1402 well pad. The site is limited to the North and South by the extents of the existing wetlands. The site is limited to the East and West by topographic conditions that could result in slope stability issues during and after construction.

d. The proposed HG 1402 well pad is the least environmentally damaging practicable alternative as it does not disturb any riparian buffers, requires minimal tree removal, disturbs the minimal amount of wetlands required to properly construct the well pad, and avoids potentially hazardous slope stability issues.

11/3/14

Wetland and Perennial Stream Waiver Request

API Number: _____

Operator's Well Number: _____

- 3. Identify sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. This description should include all additional erosion and sediment control measures and devices that will be used.**

The contractor shall delineate sensitive areas, LOD, and shall install barriers where equipment may not be parked, stage, operated, or located for any purpose before construction activities commence. E&S controls will be installed as necessary during initial site access to minimize accelerated erosion and sedimentation. Perimeter controls (compost filter sock) shall be installed immediately after the site is accessed. Land clearing and grading shall commence only after all downslope E&S controls have been constructed and stabilized. E&S controls shall be maintained during all construction activities. Upon completion of construction, stabilization will be provided including seeding & mulching. Temporary controls shall be removed only once the site is stabilized. A 2' berm will be constructed around the pad to capture any discharges. A french drain will be installed on the perimeter of the pad to capture any runoff from the well pad surface. The french drain consists of 6" perforated HDPE pipe, with an impermeable liner surrounding the backfill. The french drain will flow to two catch basins located on the pad. The basins outlet through HDPE pipes with gate valves installed. The valves shall be closed during any drilling activity or operations, and no discharge from the pad shall occur during drilling activities.

- 4. Provide mapping, plans, specifications and design analysis for the preferred alternative to the project.**

- a. Specify in writing what additional controls, measures, devices, monitoring, etc. will be used to protect these wetlands and/or perennial streams for which the waiver is sought.

See attached HG 1402 Well Pad Drawing Set. Orange plastic safety fence shall be installed around extents of wetlands where possible. Efforts shall be made to limit the amount of earth disturbance adjacent to and within wetlands. All E&S controls shall be inspected on a regular basis. Damaged or improperly functioning E&S controls shall be replaced immediately.

LEGEND

- PROPOSED 1402 WELL PAD
- LIMIT OF DISTURBANCE
- ALTERNATIVE 1402
- WELL PAD LOCATION
- 100' WETLAND BUFFER

REFERENCE:

1. TOPOGRAPHY & AERIAL IMAGERY OBTAINED FROM MOUNTAIN STATE SURVEYING & ELEVATION, INC.
2. EXISTING WETLANDS DELINEATED BY AMY ENVIRONMENTAL, INC.



REVISION	DATE	DESCRIPTION

FIGURE 1
ALTERNATIVE LOCATION MAP
HG 1402 PAD & IMPOUNDMENT
MURPHY DISTRICT
RITCHIE COUNTY, WV

PREPARED FOR
HG ENERGY II, APPALACHIA
PARKERSBURGH, WV

APPROVED MEP 11/20/2018
 CHECKED MEP 11/20/2018
 DRAWN DJA 11/20/2018
 PROJECT NO. 4000-PAD07715
 DRAWING NUMBER
7585-01A



OPERATOR: HG Energy II Appalachia, LLC WELL NO: _____

PAD NAME: Goodnight 1402

REVIEWED BY: Diane White SIGNATURE: _____

WELL RESTRICTIONS CHECKLIST

HORIZONTAL 6A WELL

Well Restrictions

- At Least 100 Feet from Pad and LOD (including any E&S Control Feature) to any Perennial Stream, Lake, Pond, Reservoir or Wetland; OR
- DEP Waiver and Permit Conditions
- At Least 300 Feet from Pad and LOD (including any E&S Control Feature) to any Naturally Producing Trout Stream; OR
- DEP Waiver and Permit Conditions
- At Least 1000 Feet from Pad and LOD (including any E&S Control Feature) to any Groundwater Intake or Public Water Supply; OR
- DEP Waiver and Permit Conditions
- At Least 250 Feet from an Existing Water Well or Developed Spring to Well Being Drilled; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions
- At Least 625 Feet from an Occupied Dwelling Structure to Center of the Pad; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions
- At Least 625 Feet from Agricultural Buildings Larger than 2500 Square Feet to the Center of the Pad; OR
- Surface Owner Waiver and Recorded with County Clerk, OR
- DEP Variance and Permit Conditions

PERMIT CONDITIONS

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

CONDITIONS

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

PERMIT CONDITIONS

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



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street SE, Charleston, WV 25304
304-926-0499 Ext 1274

Barry K. Lay, Chairman
dep.wv.gov

October 9, 2018

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-085-10375

COMPANY: HG Energy II Appalachia, LLC

FARM: HG Energy II Appalachia, LLC Goodnight 1402 N-3H

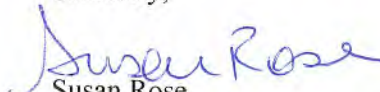
COUNTY: Ritchie DISTRICT: Murphy QUAD: Smithville

The deep well review of the application for the above company is Approved to drill to Trenton for Marcellus completion.

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? NA
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? Yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: none
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,


Susan Rose
Administrator

WW-6B
(04/15)

API NO. 47- 85-1037516A ^{01/11/2019}
OPERATOR WELL NO. 1402 N-3H
Well Pad Name: Goodnight 1402

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 Ritchie Murphy Smithville, WV 7.5
Operator ID County District Quadrangle

2) Operator's Well Number: 1402 N-3H Well Pad Name: Goodnight 1402

3) Farm Name/Surface Owner: Kenneth Paul Goodnight Public Road Access: SR 42

4) Elevation, current ground: 755' Elevation, proposed post-construction: 739'

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

Michael Jeff
11/8/18

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
5796', 55' Thick, 4204 psi

8) Proposed Total Vertical Depth: Pilot hole @ TVD 10550', then plug back to Marcellus, TVD 5830' @ landing point

9) Formation at Total Vertical Depth: Trenton, pilot hole, plug back to Marcellus formation for horizontal

10) Proposed Total Measured Depth: 19524' (Marcellus)

11) Proposed Horizontal Leg Length: 13196' (Marcellus)

12) Approximate Fresh Water Strata Depths: 68', 83', 108', 747'

13) Method to Determine Fresh Water Depths: Historical data within close proximity to the well site

14) Approximate Saltwater Depths: 997', 1278', 1483'

15) Approximate Coal Seam Depths: NA

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

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

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

RECEIVED
Office of Oil and Gas
NOV 11 2018

4708510375

WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47- 85-1035116 **01/11/2019**
 OPERATOR WELL NO. 1402 N-3H
 Well Pad Name: Goodnight 1402

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	20"	New	J-55	94	120'	120'	Drilled In
Fresh Water	13 3/8"	New	J-55	54.5	800'	800'	CTS
Coal							
Intermediate	9 5/8"	New	J-55	40	2650'	2650'	CTS
Production	5 1/2"	New	P-110	23	19524'	19524'	CTS
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	20"	0.438	2110		Type 1, Class A	
Fresh Water	13 3/8"	17.5"	0.380	2730		Type 1, Class A	40% excess, yield = 1.20, CTS
Coal							
Intermediate	9 5/8"	12 1/4"	0.395	3950		Type 1, Class A	40% excess, yield = 1.20, CTS
Production	5 1/2"	8 1/2"	0.415	14520	11500	Type 1, Class A	20% excess, lead yield = 1.19, CTS
Tubing							
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

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MAG
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WW-6B
(10/14)

API NO. 47-85-1031311624
OPERATOR WELL NO. 1402 N-3H
Well Pad Name: Goodnight 1402

01/11/2019

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

Drill vertically through the Marcellus and into the Trenton (100' or less) at an estimated total vertical depth of approximately 10,550 feet. Run open hole logging tools. Plug back with cement to kick off point. Wait on cement. Kick off / drill off of cement, plug and drill curve. Drill horizontal leg - stimulate and produce the Marcellus Formation. Should an unanticipated void be encountered in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface.

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

The stimulation will be 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 11,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.348

22) Area to be disturbed for well pad only, less access road (acres): 8.26

23) Describe centralizer placement for each casing string:

Conductor - N/A
Surface Casing - Bow Springs (over collars) on first 2 joints then every third joint to 100' from surface
Intermediate Casing - Bow Springs (over collars) on first 12 joints, then every third joint to 100' from surface
Production Casing - Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 5.0' long joint to the top of the curve.

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

Conductor - Already grouted in
Surface Casing - "15.6 ppg PNE-1 + 3% bwoc CoCl 40% Excess Yield=1.20 / CTS"
Intermediate Casing - "Load: 15.4 ppg PNE-1 + 2.5% bwoc CoCl 40% Excess / Tail: 15.0 ppg PNE-1 + 2.5% bwoc CoCl zero% Excess. CTS CTS"
Production Casing - "Load: 14.5 ppg PO2-PNE-1 + 0.3% bwoc R3 + 1% bwoc EC1 + 0.75 gal/sk FP13L + 0.3% bwoc MPA170Tail: 14.8 ppg PNE-1 + 0.35% bwoc R3 + 0.75 gal/sk FP13L + 50% bwoc ASCA1 + 0.5% bwoc MPA17022% Excess Load Yield=1.19 Tail Yield=1.94 CTS"

25) Proposed borehole conditioning procedures:

Conductor - Once at casing setting depth, ensure hole is clean at TD
Surface Casing - Circulate & condition @ TD w/ Air. RIH w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/Sol of poly flake, then clear casing w/ Fresh Water prior to pumping cement.
Intermediate Casing - Circulate & condition @ TD w/ Air. RIH w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/Sol of poly flake, then clear casing w/ Fresh Water prior to pumping cement.
Production Casing - Once on bottom/TD with casing, circulate at max allowable pump rate for at least 2h 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.

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Goodnight 1402 N-3H
Marcellus Shale Horizontal
Ritchie County, WV

Pilot Hole to be drilled, Run Open Hole Wireline Logs, then plug back with cement to KOP

Goodnight 1402 N-3H SHL

14188206.86N 1615975.34E

Ground Elevation

738'

Goodnight 1402 N-3H LP

14188840.95N 1616415E

Azm

340.016°

Goodnight 1402 N-3H BHL

14201237.27N 1611907.14E

WELLBORE DIAGRAM	HOLE	CASING	GEOLOGY	TOP	BASE	MUD	CEMENT	CENTRALIZERS	CONDITIONING	COMMENTS
	20"	20" 94# J-55	Conductor	0	120	AIR	Casing "Drilled In" with Dual Rotary Rig	N/A	Once at casing setting depth, ensure hole is clean at TD	Conductor casing = 0.438" wall thickness Burst=2110 psi
	17.5"	13-3/8" 54.5# J-55 BTC	Surface Casing	0	800	AIR	15.6 ppg PNE-1 + 3% bwoc CaCl 40% Excess Yield=1.20 / CTS	Bow Springs (over collars) on first 2 joints then every third joint to 100' from surface	Circulate & condition @ TD w/ Air. RIH w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/50# of poly flake, then clear casing w/ Fresh Water prior to pumping cement.	Surface casing = 0.360" wall thickness Burst=2750 psi
	12.25"	9-5/8" 40# J-55 BTC	Big Lime	1706	1807	AIR	<u>Lead:</u> 15.4 ppg PNE-1 + 2.5% bwoc CaCl 40% Excess / <u>Tail:</u> 15.9 ppg PNE-1 + 2.5% bwoc CaCl zero% Excess. 1.20 Yield, CTS	Bow Springs (over collars) on first 12 joints, then every third joint to 100' from surface	Circulate & condition @ TD w/ Air. RIH w/ casing & fill w/ Fresh Water. Circulate a minimum of 1 hole volume, plus 30 bbls of 6% bentonite Gel/50# of poly flake, then clear casing w/ Fresh Water prior to pumping cement.	Intermediate casing = 0.395" wall thickness Burst=3950 psi
			Big Injun	1816	1830					
			Berea	2174	2199					
			Gordon	2566	2590					
	8.5" Vertical	5-1/2" 23# P-110 HC CDC HTQ	Intermediate Casing	0	2650	AIR and/or 9.0ppg SOBM		Run 1 spiral centralizer every 5 joints from the top of the curve to surface.		
			Warren	3266						
			Riley	4212						
			Benson	4512	4541					
	8.5" Curve/Lateral	5-1/2" 23# P-110 HC CDC HTQ	Alexander	4680	4760	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.		
			Rhinestreet	5004						
			Elk	5154						
			Hamilton	5328						
			Cashaqua	5480						
			Middlesex	5614						
			West River	5724						
			Marcellus	5796						
			TMD / TVD	19524	5830					
			Onondaga	5856						
Huntersville	5896									
Oriskany	6058									
Helderburg	6166									
Bass Island Dolomite	6416									
8.5" Pilot	5-1/2" 23# P-110 HC CDC HTQ	Salina	6526		11.5ppg-12.5ppg SOBM					
		Lockport	7806							
		Rochester Shale	7776							
		Packer Shell	8179							
		Clinton	8216							
		Medina	8346							
		Readsville	9196							
Utica / Pt. Pleasant	10264									
Trenton	10527	Pilot Hole TD: 10,550'								

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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Production casing = 0.415" wall thickness
Burst=14520 psi
Note: Actual centralizer schedules may be changed due to hole conditions

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LP @ 5830' TVD / 6328' MD 8.5" Hole - Cemented Long String 5-1/2" 23# P-110 HC CDC HTQ +/-13198' ft Lateral TD @ +/-5830' TVD +/-19524' MD X=centralizers

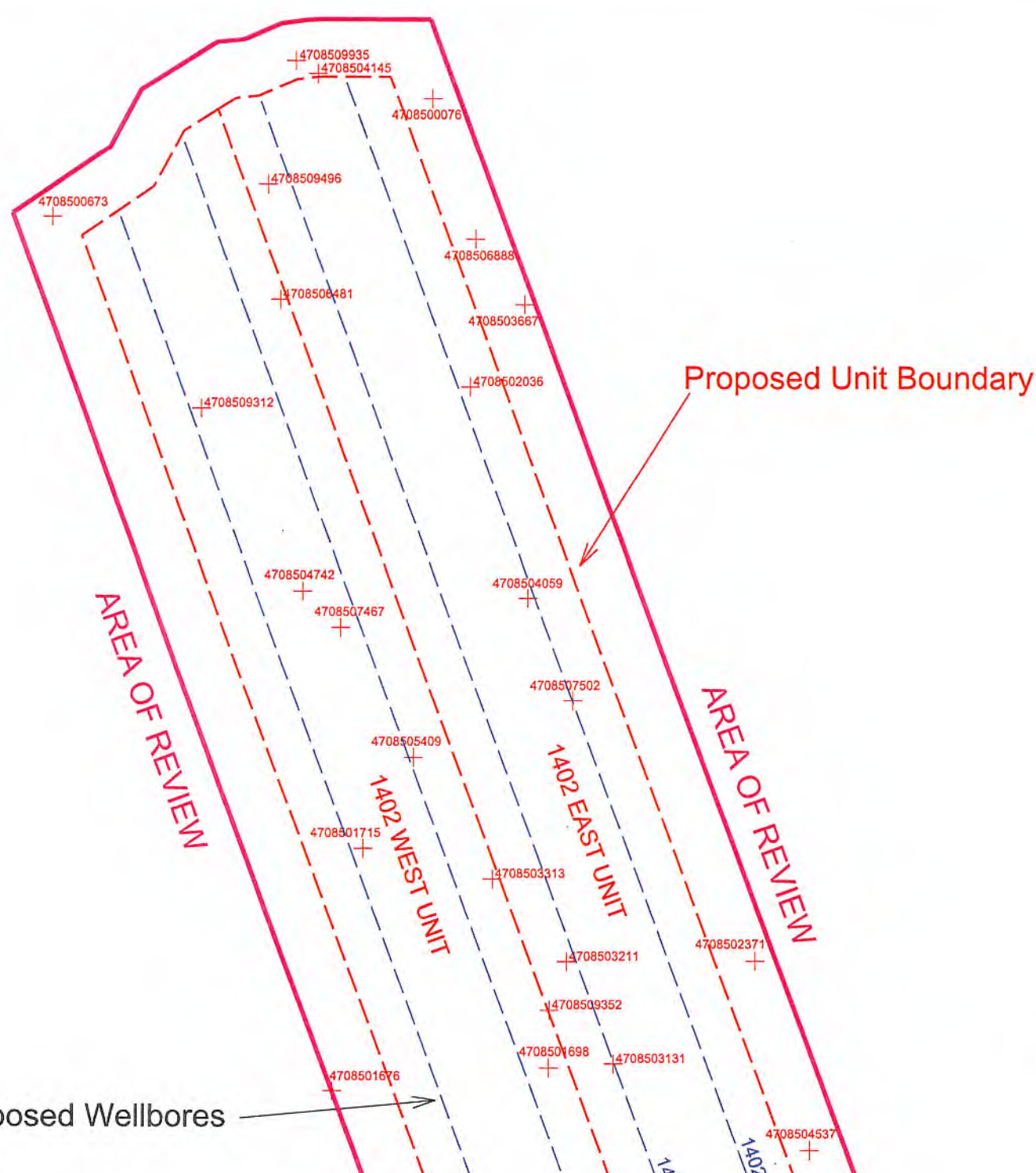
85-10375 HGA

Goodnight 1402 Well Pad (N-1H, N-2H, N-3H, N-4H)

Cement Additives

4708310375

Material Name	Material Type	Material Description	CAS #																		
Premium NE-1	Portland Cement	Premium NE-1 is a portland cement with early compressive strength properties.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Portland cement</td> <td>90 - 100</td> <td>65997-15-1</td> </tr> <tr> <td>Calcium oxide</td> <td>1 - 5</td> <td>1305-78-8</td> </tr> <tr> <td>Magnesium oxide</td> <td>1 - 5</td> <td>1309-48-4</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>0.1 - 1</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Portland cement	90 - 100	65997-15-1	Calcium oxide	1 - 5	1305-78-8	Magnesium oxide	1 - 5	1309-48-4	Crystalline silica: Quartz (SiO2)	0.1 - 1	14808-60-7			
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Bentonite	Extender	Commonly called gel, it is a clay material used as a cement extender and to control excessive free water.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>bentonite</td> <td>90 - 100</td> <td>1302-78-9</td> </tr> <tr> <td>Crystalline silica: Quartz (SiO2)</td> <td>5 - 10</td> <td>14808-60-7</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	bentonite	90 - 100	1302-78-9	Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7									
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Crystalline silica: Quartz (SiO2)	5 - 10	14808-60-7																			
Calcium Chloride	Accelerator	A powdered, flaked or pelletized material used to decrease thickening time and increase the rate of strength development	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Calcium chloride</td> <td>90 - 100</td> <td>10043-52-4</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Calcium chloride	90 - 100	10043-52-4												
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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.	<p style="text-align: center;">RECEIVED Office of Oil and Gas SEP 12 2018 WV Department of Environmental Protection</p> <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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Sucrose	90 - 100	57-50-1																			
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 (SiO2)	5 - 10	14808-60-7	Calcium oxide	1 - 5	1305-78-8									
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R-3	Retarder	A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>Organic acid salt</td> <td>40 - 50</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	Organic acid salt	40 - 50	Trade secret.												
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S-5	Surfactant	Used to water wet casing and formation to facilitate cement bonding.	<table border="1"> <thead> <tr> <th>Ingredient name</th> <th>%</th> <th>CAS number</th> </tr> </thead> <tbody> <tr> <td>2-Butoxyethanol</td> <td>20 - 30</td> <td>111-76-2</td> </tr> <tr> <td>Proprietary surfactant</td> <td>10 - 20</td> <td>Trade secret.</td> </tr> <tr> <td>D-Glucoopyranose, oligomeric, C10-16-alkyl glycosides</td> <td>5 - 10</td> <td>110615-47-9</td> </tr> <tr> <td>Alkylarylsulfonate amine salt</td> <td>1 - 5</td> <td>Trade secret.</td> </tr> <tr> <td>Polyoxyalkylenes</td> <td>0.1 - 1</td> <td>Trade secret.</td> </tr> </tbody> </table>	Ingredient name	%	CAS number	2-Butoxyethanol	20 - 30	111-76-2	Proprietary surfactant	10 - 20	Trade secret.	D-Glucoopyranose, oligomeric, C10-16-alkyl glycosides	5 - 10	110615-47-9	Alkylarylsulfonate amine salt	1 - 5	Trade secret.	Polyoxyalkylenes	0.1 - 1	Trade secret.
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Proposed Unit Boundary

AREA OF REVIEW

AREA OF REVIEW

Proposed Wellbores

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4708510375



Well Key

- + 4708501714 Conventional Vertical Well in AOR for the Unit
- + 4708501721 Well Located within 3,000' of 1402 N-3H
- Proposed Horizontal Marcellus Well

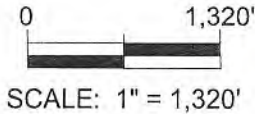
NOTE:
See Attached Spreadsheet for Well Data

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

Area of Review for:
GOODNIGHT 1402 PAD
Proposed 1402 N-1H
Proposed 1402 N-2H
Proposed 1402 N-3H (Utica Test Well)
Proposed 1402 N-4H

Murphy District, Ritchie County, W.Va.

DATA SOURCE
WVGES Data Set - 2017; WVDEP Website



Reclamation Plan For: Goodnight 1402 PAD



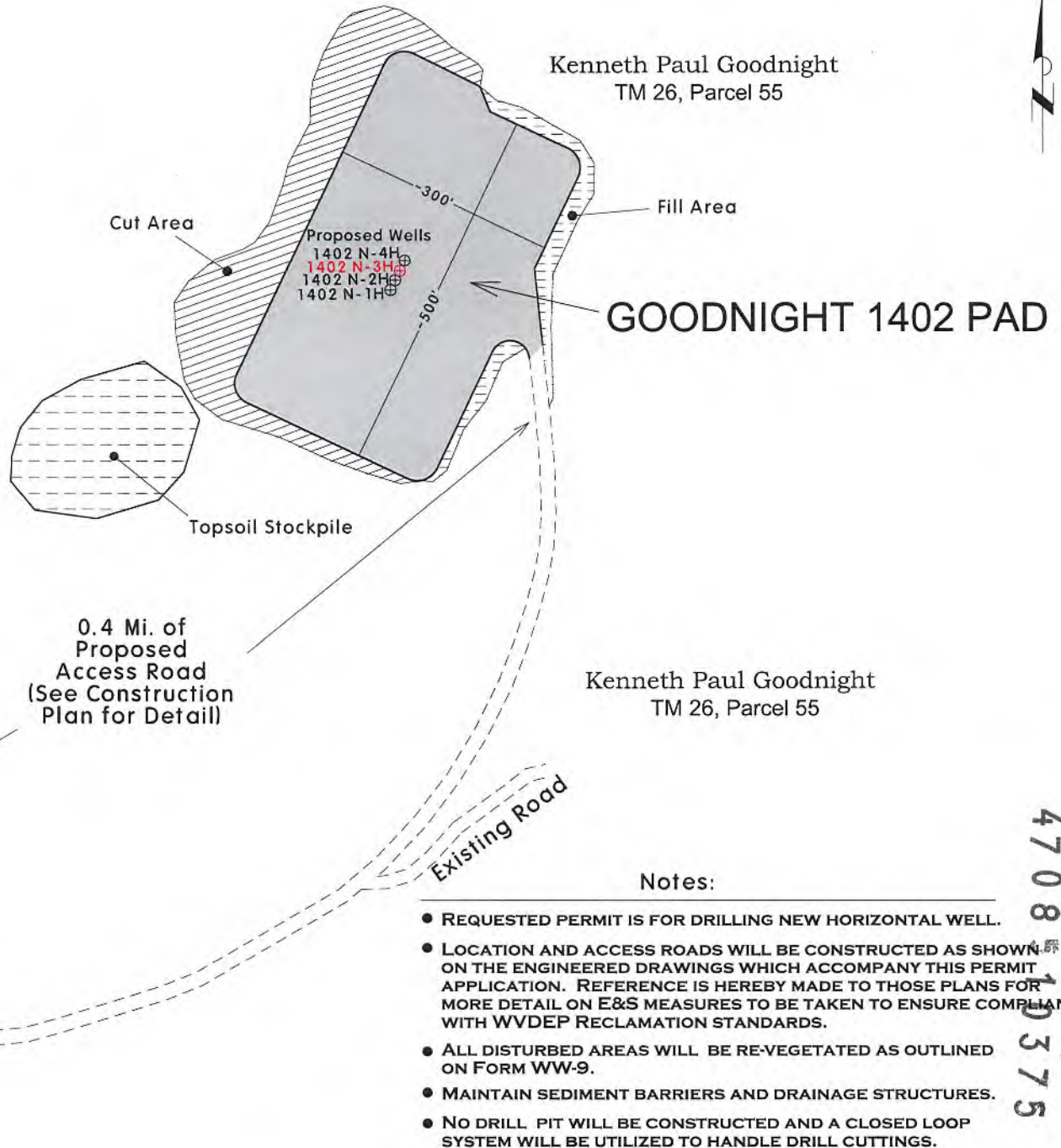
NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

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Kenneth Paul Goodnight
TM 26, Parcel 55



Kenneth Paul Goodnight
TM 26, Parcel 55

Notes:

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

47085-10375

01/11/2019

WW-9
(4/16)

API Number 47 - 4708 10375
Operator's Well No. Goodnight 1402 N-3H

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

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FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC OP Code 494501907

Watershed (HUC 10) South Fork Hughes River Quadrangle Smithville, WV 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 _____)

MAG
8-28-18

Will closed loop system be used? If so, describe: Yes

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air, Freshwater and SOB M

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

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

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

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

-Landfill or offsite name/permit number? See Attached

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

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

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

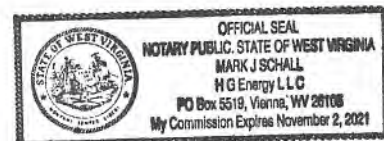
Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 21st day of August, 2018

[Signature] Notary Public
My commission expires 11/21/2021



Form WW-9

4708 10375
Operator's Well No. Goodnight 1402 N-3H

HG Energy II Appalachia, LLC

Proposed Revegetation Treatment: Acres Disturbed 15.348 Prevegetation pH _____

Lime _____ 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount _____ 500 lbs/acre

Mulch Hay _____ 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Seed Type	lbs/acre
Tall Fescue	40
Ladino Clover	5

Maintain E&S controls through the drilling and completion process

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Hoff

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: 8-28-18

Field Reviewed?

Yes

No

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WV Department of
Environmental Protection

4708 10375

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

01/11/2019

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

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

Disposal Locations:

Apex Environmental, LLC Permit # 06-08438
11 County Road 78
Amsterdam, OH 43903
740-543-4389

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
Library, PA 15129
724-348-7013
412-384-7569

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

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

Brooke County Landfill Permit # SWF-103-97 / WV 0109029
Rd 2 Box 410
Colliers, WV 26035
304-748-0014

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SEP 12 2018

WV Department of
Environmental Protection

4708 10375

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

01/11/2019

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

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Office of Oil and Gas

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

WV Department of
Environmental Protection

Water Haul off Companies:

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

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

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

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

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

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

Nuverra Environmental Solutions
11942 Veterans Memorial Highway
Masontown, WV 26542

Equipment Transport
1 Tyler Court
Carlisle, PA 17015

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

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

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

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

Disposal Locations:

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

Nichlos 1-A (SWIW #13)
Permit # 3862
300 Cherrington Pkwy, Suite 200
Coraopolis, PA 15108
412-329-7275

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

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

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

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

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 Buckeye Oilfield Services, LLC
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

01/11/2019

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4708510375

HG Energy II Appalachia, LLC

Site Safety Plan

**Goodnight 1402 Well Pad
461 Big Springs Road
Smithville, Ritchie County, WV**

August 2018: Version 1

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Office of Oil and Gas

SEP 12 2018

WV Department of
Environmental Protection

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

HG Energy II Appalachia, LLC.

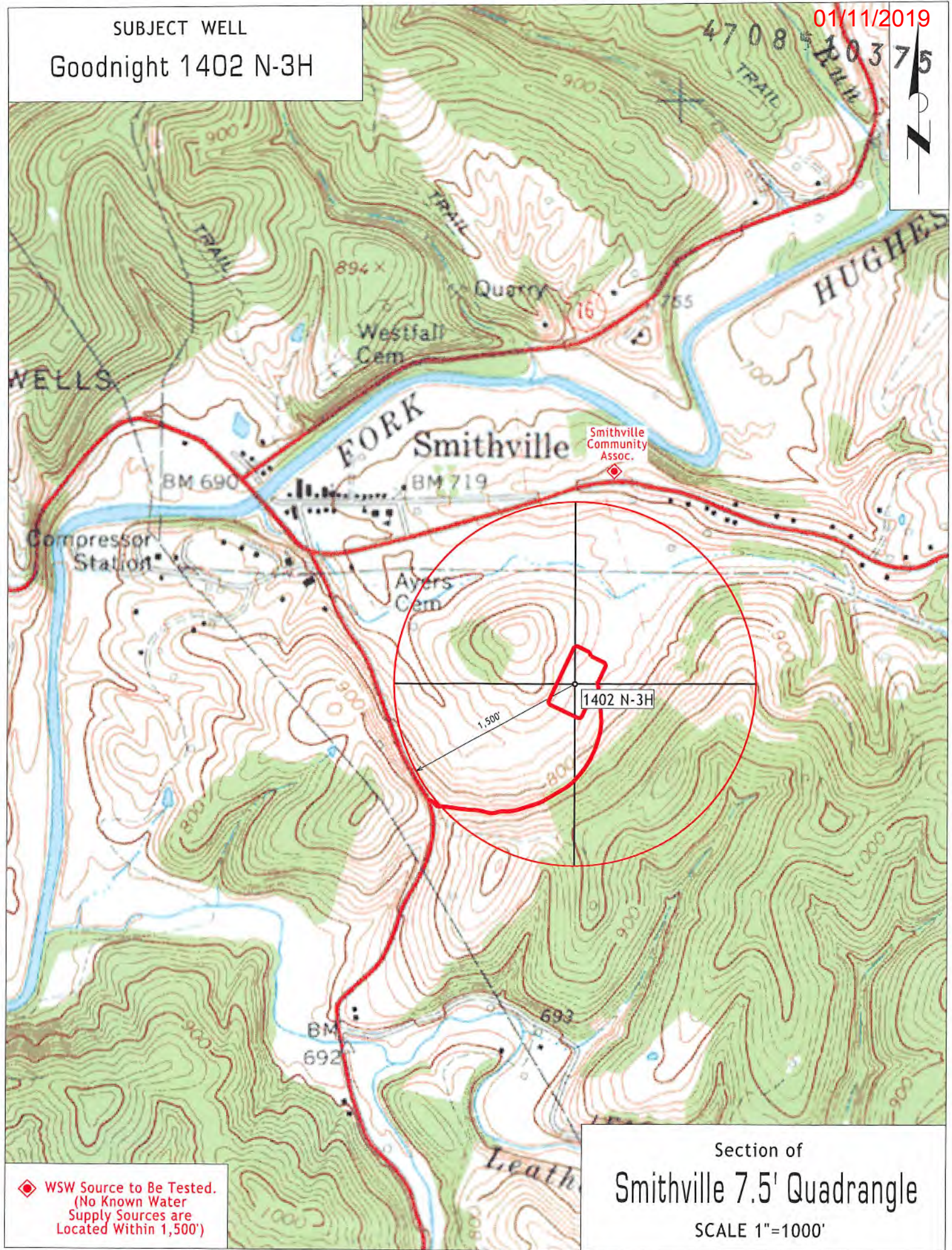
5260 Dupont Road

Parkersburg, WV 26101

Michael Doff
8-28-18

01/11/2019

SUBJECT WELL
Goodnight 1402 N-3H



 WSW Source to Be Tested.
 (No Known Water Supply Sources are Located Within 1,500')

Section of
Smithville 7.5' Quadrangle
 SCALE 1"=1000'

BHL is located on topo map 6,916 feet south of Latitude: 39°07'30"
 SHL is located on topo map 4,771 feet south of Latitude: 39°05'00"

SEE PAGE 2 FOR PLAT DUE TO LENGTH OF LATERAL

	SURFACE OWNER	DIST-TM/PAR
1	KENNETH PAUL GOODNIGHT	07-26/55
2	AYERS CEMETERY	07-26/55.1
3	DAVID F. CUNNGHAM	07-26/21
4	J. D. CUNNINGHAM	07-26/11.1
5	JENNINGS DARWIN CUNNINGHAM II	07-26/11
6	ALFAB INCORPORATED	07-26/6
7	ALFAB INCORPORATED	07-26/7
8	C. M. ELLIOTT HRS (CHAS. M.) C/O MARY CARPENTER	07-18/30
	C. W. ELLIOTT HRS C/O MARY C. OLDAKER	
	LONNIE W. ELLIOTT HRS C/O JANET SUE ELLIOTT	
	LUVINA J. ELLIOTT	
	DAVID P., JR. & JANET SUE ELLIOTT	
	RAY ELLIOTT	
	JOHN J., II & ELLYSON MARY OLDAKER C/O MARY C. OLDAKER	
	ELZONA PROST HRS	
	KENNETH H. PARKS, WILLIAM TYRAN & MARY PARKS	
	C/O BARBARA J. BARKER AND ROBERT H. PARKS	
	LYDIA M. PARKS EST & F. EUSTACE C/O LYDIA ENOS	
	HAUGHT FARM LLC	
	E. CLIFFORD WOLFE	
	WILLIAM B. ELLIOTT	
	TIMOTHY AMOS CLAYTON & JOE L. SWEETCRAFT,	
	CATHY ANN TRUESDELL	
	ERNEST J. DYE, NORMA J. COTRILL & LOIS C. PORTER	
	EDWARD LEE PORTER JR., EDWIN LEE PORTER SR.,	
	GARY MICHAEL & STEVEN TODD PORTER	
	JUDY L. MILLER	
	MARY LOU NATH	
	EDDIE C. WATSON	
	IRENA W. CONLEY	
	EDNA HARDMAN	
	ERNEST L. HARTSHORN	
	MARY ELIZABETH HILTON CARPENTER	
	SUE ELLIOTT NORRIS	
9	A. J. SCOTT	07-18/19
10	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/18
11	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/15
12	KEVIN SCOTT SIMMONS & LISA MICHELLE HONAKER	07-18/8
13	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-18/7

01/11/20
 SURFACE HOLE LOCATION (SHL)
UTM 17-NAD83(M)
 N:4324574.10
 E:492550.27
 UTM 17-NAD83(FT)
 N:14188206.86
 E:1615975.34
 LAT/LON DATUM-NAD83
 LAT:39.070234
 LON:-81.086118



APPROX. LANDING POINT
UTM 17-NAD83(M)
 N:4324767.37
 E:492684.28
 UTM 17-NAD83(FT)
 N:14188840.95
 E:1616415.00
 LAT/LON DATUM-NAD83
 LAT:39.071977
 LON:-81.084571



BOTTOM HOLE LOCATION (BHL)
UTM 17-NAD83(M)
 N:4328545.78
 E:491310.28
 UTM 17-NAD83(FT)
 N:14201237.27
 E:1611907.14
 LAT/LON DATUM-NAD83
 LAT:39.106012
 LON:-81.100503

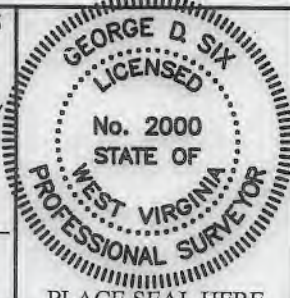
	LESSOR	DIST-TM/PAR
A	M. A. AYERS	07-26/55
B	WILSON	07-26/21
C	PARKS/ WILSON	07-26/11.1
		07-26/11
D	HAUGHT/EVANS	07-26/6
E	S. H. WESTFALL	07-26/7
F	MARY ELLIOT HEIRS	07-18/30
G	MARY E. SCOTT	07-18/19
H	A. ELLIOTT	07-18/18
J	R. JOHNSON	07-18/15
K	HEDGE	07-18/8
L	PARKS	07-18/7



FILE #: GOODNIGHT 1402 N-3H
 DRAWING #: GOODNIGHT 1402 N-3H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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

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



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



DATE: AUGUST 14, 2018
 OPERATOR'S WELL #: GOODNIGHT 1402 N-3H
 API WELL #: 47 85 1037546A
 STATE COUNTY PERMIT

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

WATERSHED: SOUTH FORK HUGHES RIVER ELEVATION: 739'±
 COUNTY/DISTRICT: RITCHIE / MURPHY QUADRANGLE: SMITHVILLE, WV 7.5'
 SURFACE OWNER: KENNETH PAUL GOODNIGHT ACREAGE: 239.924±
 OIL & GAS ROYALTY OWNER: M. A. AYERS ACREAGE: 1032.649±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): AND DRILL HORIZONTAL MARCELLUS SHALE WELL

TARGET FORMATION: UTICA TEST/MARCELLUS SHALE PRODUCTION ESTIMATED DEPTH: UTICA TVD: 10,750'±
TVD: 5,830'± TMD: 19,524'±
 WELL OPERATOR HG ENERGY II APPALACHIA, LLC DESIGNATED AGENT DIANE C. WHITE
 Address 5260 DUPONT ROAD Address 5260 DUPONT ROAD
 City PARKERSBURG State WV Zip Code 26101 City PARKERSBURG State WV Zip Code 26101

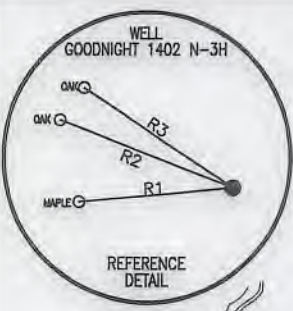
BHL is located on topo map 4,872 feet west of Longitude: 81°05'00"
 SHL is located on topo map 791 feet west of Longitude: 81°05'00"

GOODNIGHT 1402 N-3H

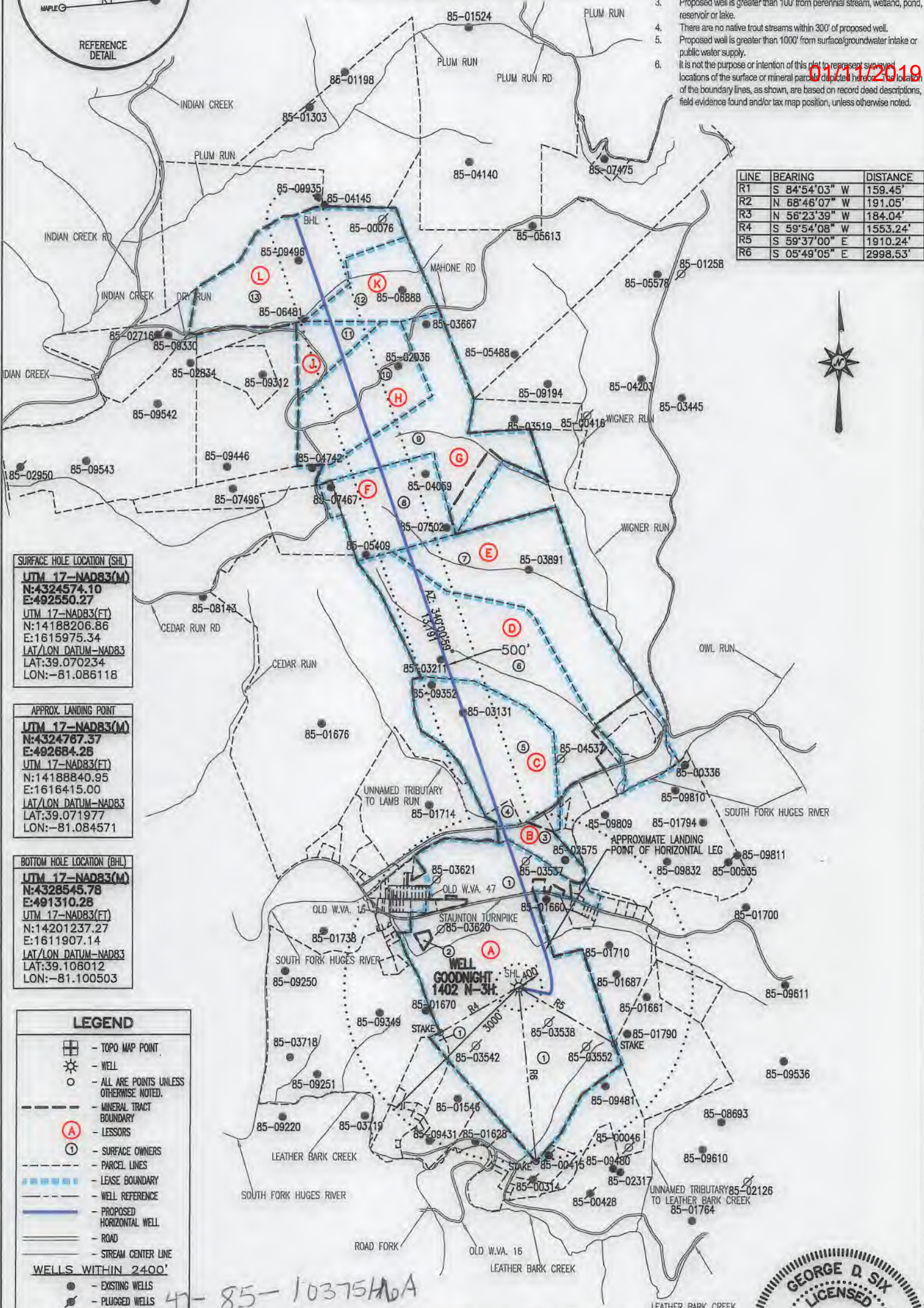
PAGE 2 OF 2

NOTES:

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



LINE	BEARING	DISTANCE
R1	S 84°54'03" W	159.45'
R2	N 68°46'07" W	191.05'
R3	N 56°23'39" W	184.04'
R4	S 59°54'08" W	1553.24'
R5	S 59°37'00" E	1910.24'
R6	S 05°49'05" E	2998.53'



SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83(M)
 N:4324574.10
 E:492550.27
 UTM 17-NAD83(FT)
 N:14188206.86
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 UTM 17-NAD83(FT)
 N:14201237.27
 E:1611907.14
 LAT/LON DATUM-NAD83
 LAT:39.106012
 LON:-81.100503

LEGEND

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

WELLS WITHIN 2400'

- EXISTING WELLS
- PLUGGED WELLS
- ABANDONED WELLS

47-85-10375H0A

THERE ARE NO DEEP WELLS WITHIN 3000'

AUGUST 14, 2018



George D. Six

WW-6A1
(3/13)

Operator's Well No. _____

4708-10375

**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 Sheet

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WV Department of
Environmental Protection

**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: Agent

4708 SEP 12 2018
10375

HG Energy II Appalachia, LLC
Goodnight 1402 N-3H Lease Chains

WV Department of
Environmental Protection

HG Plat Number	MPID	Original Lessor	Original Lessee	Royalty	Book	Page
A) ✓	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	M. A. Ayers and Mary Ayers, his wife	W. J. Burke	Not less than 1/8	LB 21	174
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Mars Oil and Gas Company	Mountain State Gas Company		LB 25	258
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Mountain State Gas Company	Hope Natural Gas Company		LB 30	423
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Hope Construction and Refining Company	South Penn Natural Gas Company		LB 74	263
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	South Penn Natural Gas Company	South Penn Oil Company		DB 138	575
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Hope Natural Gas Company	Consolidated Gas Supply Corp.		DB 151	436
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Company	Pennzoil United, Inc.		DB 159	453
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Consolidated Gas Supply Corp.	Consolidated Gas Transmissions Corp		LB 169	756
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Company	Pennzoil Products Company		LB 193	18
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Company	Pennzoil Products Company		DB 223	696
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Pennzoil Products Company	Pennzoil Exploration and Production Company		DB 267	630
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Devon Energy Production	East Resources, Inc.		DB 277	96
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	East Resources, Inc.	HG Energy, LLC		LB 252	830
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Dominion Exploration and Production, In.	Dominion Transmission, Inc		LB 251	621
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Dominion Transmission, Inc	Consol Energy Holdings LLC XVI		LB 251	648
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Dominion Resources, Inc., Dominion Transmission, Inc., and Consol Energy Holdings XVI	CNX Gas Company		LB 253	841
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	CNX Gas Company	Noble Energy, Inc.		LB 254	811
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	CNX Gas Company	Noble Energy, Inc.		LB 304	287
	7-26-55, 7-53-24.1, 7-53-24.2, 7-26-55.8	Noble Energy, Inc.	HG Energy II Appalachia, LLC		LB 309	251
B) ✓	7-26-21	Forest Wilson and Bessie Irene Wilson, his wife	Glenn L. Haught and Sons	Not less than 1/8	LB 96	3
	7-26-21	Glenn L. Haught and Sons	L. E. Haught		LB 102	194
	7-26-21	Glenn L. Haught and Sons	M. F. Frederick		LB 118	240
	7-26-21	Glenn L. Haught and Sons	Eldon J. Haught and/or Mary Haught, H/W		LB 103	297
	7-26-21	Glenn L. Haught and Sons	Glenn L. Haught and Bernice M. Haught		LB 104	24
	7-26-21	Warren R. Haught and Lenna G. Haught	710 Corporation		LB 176	609
	7-26-21	Haught Oil Producing Corporation	710 Corporation		LB 180	791
	7-26-21	710 Corporation	Lenna G. Haught		LB 211	514
	7-26-21	Lenna G. Haught	HAH Petroleum, Inc.		LB 212	88
	7-26-21	HAH Petroleum, Inc.	Hughes Resources, Inc.		LB 222	15

7-26-21	Hughes Resources, Inc.	HAH Petroleum, Inc.	LB 223	332
7-26-21	Ira M. Haught	Whittle Corporation	DB 276	283
7-26-21	710 Corporation	Whittle Corp.	LB 234	182
7-26-21	Lenna G. Haught	710 Corporation	LB 234	600
7-26-21	Warren R. Haught	710 Corporation	LB 234	601
7-26-21	Ida Mae Parks	Whittle Corporation	LB 237	843
	Karen I. Harris and			
7-26-21	Kenton E. Harris	Whittle Corporation	LB 237	844
	Pamela J. Stanley and			
7-26-21	Gary R. Stanley	Whittle Corporation	LB 237	845
7-26-21	Pamela J. Stanley	Whittle Corporation	LB 239	351
	Oma Jean Lynch and			
7-26-21	Richard C. Lynch	Whittle Corporation	LB 239	352
7-26-21	Karen I Harris	Whittle Corporation	LB 239	408
7-26-21	Ida Mae Haught Parks	Whittle Corporation	LB 239	670
7-26-21	Eldon J. Haught	Petroedge Resources, LLC	LB 239	925
	Quest Eastern			
	Resources, LLC			
	(Petroedge Resources			
7-26-21	LLC.)	Quest Cherokee, LLC	LB 246	1062
	Stephen J. Moriarty,			
	solely in his capacity as			
	Chapter 11 Trustee for			
7-26-21	PostRock Energy Corp.	UIV, LLC	LB 297	556
7-26-21	UIV, LLC	Alpha Helix Energy, LLC	LB 297	587
7-26-21	710 Corporation	Whittle Corporation	LB 308	27
	Whittle Corp., Montani			
	Energy, LLC, Haught			
	Energy Corp., and Alpha			
7-26-21	Helix Energy, LLC	Burning Springs Energy, LLC	LB 308	796
	Burning Springs Energy,			
7-26-21	LLC	HG Energy II Appalachia, LLC	INS#	201800006269

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Environmental Protection

C)	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Sherman H. Parks and Delia Parks, his wife and C. F. Wilson and Bessie I. Wilson, his wife	Glenn L. Haught	Not less than 1/8	LB 85	8
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Sidney Renehan		LB 85	52
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Margaret Sperry		LB 85	170
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	LW Bodge		LB 86	517
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Paul Bertram		LB 91	397
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Paul McCoy		LB 123	465
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	LW Bodge	Eldon J. Haught and/or Mary Haught, H/W		LB 103	293
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Glenn L. Haught	Glenn L. Haught and/or Bernice Haught		LB 104	31
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Sydney Renehan	Glenn L. Haught and/or Bernice Haught		LB 109	296
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Misco Industries, FKA Montani Iron & Supply Co.	Warren R. Haught		LB 145	323
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Warren R. Haught and Lenna G. Haught	710 Corporation		LB 176	609
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Haught Oil Producing Corporation	710 Corporation		LB 180	791
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	710 Corporation	Lenna G. Haught		LB 211	514
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Lenna G. Haught	HAH Petroleum, Inc.		LB 212	88
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	HAH Petroleum, Inc.	Hughes Resources, Inc.		LB 222	15
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Hughes Resources, Inc.	HAH Petroleum, Inc.		LB 223	332
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Ira M. Haught	Whittle Corporation		DB 276	283
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Karen I. Harris and Kenton E. Harris	Whittle Corporation		LB 237	844
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Pamela J. Stanley and Gary R. Stanley	Whittle Corporation		LB 237	845
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Ida Mae Parks	Whittle Corporation		LB 237	843
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Lenna G. Haught	710 Corporation		LB 234	600
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Warren R. Haught	710 Corporation		LB 234	601
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Pamela J. Stanley	Whittle Corporation		LB 239	351
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Oma Jean Lynch and Richard C. Lynch	Whittle Corporation		LB 239	352
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Karen I Harris	Whittle Corporation		LB 239	408
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Ida Mae Haught Parks	Whittle Corporation		LB 239	670
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Eidon J. Haught	Petroedge Resources, LLC		LB 239	925
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Quest Cherokee, LLC		LB 246	1062
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC		LB 297	556
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	UIV, LLC	Alpha Helix Energy, LLC		LB 297	587
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	710 Corporation	Whittle Corporation		LB 308	27
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Burdett Sperry Roming	Alpha Helix Energy, LLC		LB 312	195
	7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Anne R. Decker	Alpha Helix Energy, LLC		LB 312	198
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC		LB 308	796	
7-26-11, 7-26-11.1, 7-26-18, 7-26-19	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC		INS#	201800006269	

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D)	7-26-6, 7-26-6.2, 7-26-6.3	Pansy S. Lemon now Pansy Lemon Evans & Clarence S. Evans, her husband	Glenn L., Warren R. & Eldon J. Haught, DBA Glenn L. Haught & Sons, Smithville, W.Va.	Not less than 1/8	LB 108	232
----	----------------------------	--	--	----------------------	--------	-----

7-26-6, 7-26-6.2, 7-26-6.3	Glenn L., Warren R. & Eldon J. Haught, DBA, Glenn L. Haught & Sons	L. E. Haught	LB 110	33
7-26-6, 7-26-6.2, 7-26-6.3	Glenn L., Warren R. & Eldon J. Haught, DBA, Glenn L. Haught & Sons	Glenn L. Haught and/or Bernice Haught	LB 111	186
7-26-6, 7-26-6.2, 7-26-6.3	Glenn L. Haught and Sons	M. F. Frederick	LB 118	233
7-26-6, 7-26-6.2, 7-26-6.3	Warren R. Haught and Lenna G. Haught	710 Corporation	LB 176	609
7-26-6, 7-26-6.2, 7-26-6.3	710 Corporation	Lenna G. Haught	LB 211	514
7-26-6, 7-26-6.2, 7-26-6.3	Lenna G. Haught	HAH Petroleum, Inc.	LB 212	88
7-26-6, 7-26-6.2, 7-26-6.3	Ira M. Haught	Whittle Corporation	DB 276	283
7-26-6, 7-26-6.2, 7-26-6.3	Oma Jean Lynch and Richard C. Lynch	Whittle	LB 237	842
7-26-6, 7-26-6.2, 7-26-6.3	Ida Mae Parks	Whittle Corporation	LB 237	843
7-26-6, 7-26-6.2, 7-26-6.3	Karen I. Harris and Kenton E. Harris	Whittle Corporation	LB 237	844
7-26-6, 7-26-6.2, 7-26-6.3	Pamela J. Stanley and Gary R. Stanley	Whittle Corporation	LB 237	845
7-26-6, 7-26-6.2, 7-26-6.3	710 Corporation	Whittle Corp.	LB 234	182
7-26-6, 7-26-6.2, 7-26-6.3	Whittle Corporation	Petroedge Resources, LLC	LB 237	136
7-26-6, 7-26-6.2, 7-26-6.3	Petroedge Resources, LLC	Petroedge Resources, LLC	LB 237	515
7-26-6, 7-26-6.2, 7-26-6.3	Pamela J. Stanley	Whittle Corporation	LB 239	351
7-26-6, 7-26-6.2, 7-26-6.3	Oma Jean Lynch and Richard C. Lynch	Whittle Corporation	LB 239	352
7-26-6, 7-26-6.2, 7-26-6.3	Karen I Harris	Whittle Corporation	LB 239	408
7-26-6, 7-26-6.2, 7-26-6.3	Alan R. Haught	Petroedge Resources, LLC	LB 239	631
7-26-6, 7-26-6.2, 7-26-6.3	Ida Mae Haught Parks	Whittle Corporation	LB 239	670
7-26-6, 7-26-6.2, 7-26-6.3	Eldon J. Haught	Petroedge Resources, LLC	LB 239	925
7-26-6, 7-26-6.2, 7-26-6.3	Warren R. Haught and Lenna G. Haught	Whittle Corporation	LB 241	538
7-26-6, 7-26-6.2, 7-26-6.3	Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Quest Cherokee, LLC	LB 246	1062
7-26-6, 7-26-6.2, 7-26-6.3	Postrock Mid Continent Production, LLC	PostRock Eastern Production, LLC	LB 254	553
7-26-6, 7-26-6.2, 7-26-6.3	UIV, LLC	Alpha Helix Energy, LLC	LB 297	587
7-26-6, 7-26-6.2, 7-26-6.3	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC	LB 297	556
7-26-6, 7-26-6.2, 7-26-6.3	710 Corporation	Whittle Corporation	LB 308	27
7-26-6, 7-26-6.2, 7-26-6.3	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC	LB 308	796
7-26-6, 7-26-6.2, 7-26-6.3	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC	INS#	201800006269

See attached Assignment

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E) ✓	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	S.H. Westfall and Minnie Westfalle	Hope Natural Gas Company	Not less than 1/8	LB 27	277	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	Hope Natural Gas Company	Consolidated Gas Supply Corporation		DB 151	436	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	Consolidated Gas Supply Corp.	Consolidated Gas Transmissions Corp		LB 169	756	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	Dominion Exploration and Production, Inc. Dominion	Dominion Transmission, Inc Consol Energy Holdings LLC		LB 251	621	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	Transmission, Inc	XVI		LB 251	648	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	CNX Gas Company	Noble Energy, Inc.		LB 254	811	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	CNX Gas Company	Noble Energy, Inc.		LB 304	287	
	7-26-7, 7-26-7.1, 7-26-7.2, 7-26-7.3	Noble Energy, Inc.	HG Energy II Appalachia, LLC		LB 309	32	
	F) ✓	7-18-29, 7-18-30	Bonnie C. Keister	Warren R. Haught	Not less than 1/8	LB 126	383
		7-18-29, 7-18-30	Michael P. Elliott, James W. Elliott, Linda L. Elliott, Gary J. Weber, and Gary J. Weber Guardian of Timothy A. Weber, (Mary C Elliot Heirs)	Warren R. Haught	Not less than 1/8	LB 126	357
7-18-29, 7-18-30		Shirley J. Ash, Roy L. Ash, Gary A. Elliott, Youn Su Elliott, Bonnie L. Mayle (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	359	
7-18-29, 7-18-30		James W Elliott and Wanda Jean Elliott (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	379	
7-18-29, 7-18-30		Robert Elliott Donald M. Elliott, David Paul Elliot and his wife Janet Sue Elliott, Gary Blaine Norris and his wife Sue Ellen Norris (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	385	
7-18-29, 7-18-30		Barbara E. Nicoloff, Joseph W. Butcher and Mary Kay Butcher (Mary C. Elliott Heirs)	Warren R. Haught	Not less than 1/8	LB 126	381	
7-18-29, 7-18-30		Velma Collins and C H Collins	Warren R. Haught	Not less than 1/8	LB 127	97	
7-18-29, 7-18-30		Edna B Oldaker and John J Oldaker	Warren R. Haught	Not less than 1/8	LB 126	377	
7-18-29, 7-18-30		Warren R Haught and Lenna G Haught	710 Corporation		LB 176	609	
7-18-29, 7-18-30		710 Corporation	F&S Drilling, Inc		LB 186	528	
7-18-29, 7-18-30		710 Corporation	F&S Drilling, Inc		LB 190	698	
7-18-29, 7-18-30		F&S Drilling, Inc by Frank J Keating, President and F&S Drilling, by Frank J Keating as General Partner	710 Corporation		LB 211	37	
7-18-29, 7-18-30		710 Corporation	Whittle Corp		LB 234	182	
7-18-29, 7-18-30		Whittle Corporation	Petroedge Resources, LLC		LB 237	136	
7-18-29, 7-18-30		PetroEdge Resources, LLC	PetroEdge Resources (WV), LLC		LB 237	515	
7-18-29, 7-18-30	Whittle Corporation Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Petroedge Resources (WV), LLC		LB 246	511		
7-18-29, 7-18-30		Quest Cherokee, LLC		LB 246	1062		

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	7-18-29, 7-18-30	PostRock MidContinent Production, LLC	PostRock Eastern Production, LLC	LB 254	553
		Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for			
	7-18-29, 7-18-30	PostRock Energy Corp. UIV, LLC	UIV, LLC	LB 297	556
	7-18-29, 7-18-30	710 Corporation	Alpha Helix Energy, LLC Whittle Corp	LB 297 LB 308	587 27
		Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC			
	7-18-29, 7-18-30	Burning Springs Energy, LLC	Burning Springs Energy, LLC	LB 308	796
	7-18-29, 7-18-30	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC	INS#	201800006269
G) ✓	7-18-19, 7-18-31, 7-18-32	Mary E Scott, Bessie Scott, Sarah Scott, all single, LB Scott and Eva O Scott, his wife, Viola M Scott, widow and Viola M Scott, Guardian of Mary E Scott, Opal M Scott and Ernest M Scott, AA Scott and Eddie A Scott, his wife, GD McElroy and GD McElroy, Guardian, Allie J Scott, May Lamo and Harold Lamp, her husband		Not less than 1/8	LB 43 357
	7-18-19, 7-18-31, 7-18-32	Hope Natural Gas Company	Consolidated Gas Supply Corporation	DB 151	436
	7-18-19, 7-18-31, 7-18-32	Consolidated Gas Supply Corp.	Consolidated Gas Transmissions Corp	LB 169	756
		Dominion Exploration and Production, In. Dominion			
	7-18-19, 7-18-31, 7-18-32	Dominion Transmission, Inc	Dominion Transmission, Inc	LB 251	621
	7-18-19, 7-18-31, 7-18-32	Consol Energy Holdings LLC	Consol Energy Holdings LLC	LB 251	648
	7-18-19, 7-18-31, 7-18-32	CNX Gas Company	XVI	LB 254	811
	7-18-19, 7-18-31, 7-18-32	Noble Energy, Inc.	Noble Energy, Inc.	LB 304	287
	7-18-19, 7-18-31, 7-18-32	CNX Gas Company	Noble Energy, Inc.	LB 304	287
	7-18-19, 7-18-31, 7-18-32	Noble Energy, Inc.	HG Energy II Appalachia, LLC	LB 309	32

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		Ada M Elliot, widow, Ray Elliott and Helen Elliott, his wife, Louie G Elliott and Wilma Elliott, his wife, Charles A Elliott and Velma Elliott, his wife, Chantilla Buzzard, widow, Ora Mae McAtee and Bill McAtee, her husband, Kenneth Buzzard and Bernice Buzzard, his wife, Okey L Buzzard and Geraldine Buzzard, his wife, Maurice D Buzzard and Helen M Buzzard, his wife, Dora J Wright and Kenneth E Wright, her husband, Donald Buzzard and Madeline Buzzard, his wife, Burl P Buzzard and Anne D Buzzard, his wife, and Dorothy Lou White and Willard Ray White, her husband	Alegheny Land and Mineral Company	Not less than 1/8	LB 89	314
H)	7-18-18					
	7-18-18	Alamco, Inc	Columbia Natural Resources, Inc		DB 269	668
	7-18-18	Resources, Inc	Chesapeake Appalachia, LLC		DB 294	520
	7-18-18	Chesapeake Appalachia, LLC	Statoilhydro USA Onshore Properties, Inc		LB 247	875
	7-18-18	Chesapeake Appalachia, LLC	Statoilhydro USA Onshore Properties, Inc		LB 247	884
	7-18-18	Chesapeake Appalachia, LLC	SWN Production Company, LLC		LB 208	707
		SWN Production Company, LLC. And Statoilhydro USA Onshore Properties, Inc	HG Energy II Appalachia, LLC		INS#	201800005399

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		Ruth E. Johnson, Ronald Johnson, Wilmer and Beverly Johnson, Sara L and Emmet R Berry, Jr. Edith Farris, Ilene V Williams, George H		Not less than 1/8	LB 155	526
J)	7-18-15	Williams	Warren R Haught			
	7-18-15	Frank I Allebaugh and Pearl E Allebaugh	Warren R Haught	Not less than 1/8	LB 156	551
	7-18-15	Warren R Haught and Lenna G Haught	710 Corporation		LB 176	609
	7-18-15	710 Corporation	Lenna G Haught		LB 211	514
	7-18-15	Lenna G Haught	HAH Petroleum, Inc		LB 212	88
	7-18-15	HAH Petroleum	Hughes Resources, Inc		LB 222	15
	7-18-15	Hughes Resources, Inc	HAH Petroleum		LB 223	332
	7-18-15	Lenna G Haught	HAH Petroleum, Inc		LB 224	644
	7-18-15	HAH Petroleum, Inc, by Trustee	Whittle Corporation		LB 276	283
	7-18-15	Whittle Corporation	Petroedge Resources, LLC		LB 237	136
	7-18-15	Petroedge Resources, LLC	Petroedge Resources, LLC		LB 237	515
	7-18-15	Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Quest Cherokee, LLC		LB 246	1062
	7-18-15	PostRock MidContinent Production, LLC	PostRock Eastern Production, LLC		LB 254	553
	7-18-15	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC		LB 297	556
	7-18-15	UIV, LLC	Alpha Helix Energy, LLC		LB 297	587
	7-18-15	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC		LB 308	796
	7-18-15	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC	INS#		201800006269

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K) ✓	7-18-8	Violet Hedge, for herself and as Attorney for WR Hedge	Warren R Haught	Not less than 1/8	LB 159	437
	7-18-8	Warren R Haught and Lenna G Haught	710 Corporation		LB 176	609
	7-18-8	710 Corporation	Lenna G Haught		LB 211	514
	7-18-8	Lenna G Haught	HAH Petroleum, Inc		LB 212	88
	7-18-8	HAH Petroleum	Hughes Resources, Inc		LB 222	15
	7-18-8	Hughes Resources, Inc	HAH Petroleum		LB 223	332
	7-18-8	Lenna G Haught	HAH Petroleum, Inc		LB 224	644
	7-18-8	HAH Petroleum, Inc, by Trustee	Whittle Corporation		LB 276	283
	7-18-8	Whittle Corporation	Petroedge Resources, LLC		LB 237	136
	7-18-8	Petroedge Resources, LLC	Petroedge Resources, LLC		LB 237	515
	7-18-8	Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Quest Cherokee, LLC		LB 246	1062
	7-18-8	PostRock MidContinent Production, LLC	PostRock Eastern Production, LLC		LB 254	553
	7-18-8	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC		LB 297	556
	7-18-8	UIV, LLC	Alpha Helix Energy, LLC		LB 297	587
	7-18-8	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC		LB 308	796
	7-18-8	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC		INS#	201800006269

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		Ethel Haught, WT Parks and Carrie V Parks, his wife, Carrie B Waggoner and Pearl P Waggoner, his wife, Paul Ryan and Mary Ryan, his wife, and Kenneth H Parks and Rose Parks, his wife	Dale Wolfe	Not less than 1/8	LB 121	202
L)	7-18-7	Sylvia Snyder and Lelia Atkinson	Dale Wolfe	Not less than 1/8	LB 121	300
	7-18-7	Dale Wolfe	Warren R Haught		LB 123	154
		Emerson Jones and Joan Jones, his wife, OW Gatrell and Camilla Gatrell, his wife, Barbara Doak and Clyde Doak, Jr., her husband and Bill Stout and Jeannette		Not less than 1/8		
	7-18-7	Stout, his wife	Dale Wolfe		LB 122	13
	7-18-7	Dale Wolfe	Warren R Haught		LB 123	152
	7-18-7	Warren R Haught	Glenn L Haught and Sons		LB 127	495
	7-18-7	Glenn L Haught and Sons Landmark Resources Corp.	Landmark Resources Corp. Glenn L Haught and Sons		LB 126 LB 133	594 448
		Barry D Haught and Warren R Haught, DBA Glenn L Haught and Sons Haught, Inc. Warren R Haught and Lenna G Haught Haught Oil Producing, formerly Haught, Inc 710 Corporation 710 Corporation Lenna G Haught HAH Petroleum, Inc	Haught, Inc. Warren R Haught 710 Corporation Lenna G Haught HAH Petroleum, Inc Hughes Resources, Inc		LB 152 LB 173 LB 176 LB 180 LB 211 LB 212 LB 222	155 496 609 791 514 88 15
	7-18-7	Hughes Resources, Inc	HAH Petroleum, Inc		LB 223	332
	7-18-7	Lenna G Haught	HAH Petroleum, Inc		LB 224	644

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7-18-7	HAH Petroleum, Inc, by Trustee	Whittle Corporation	LB 276	283
7-18-7	710 Corporation	Whittle Corporation	LB 234	182
7-18-7	Lenna G. Haught	710 Corporation	LB 234	600
7-18-7	Warren R. Haught	710 Corporation	LB 234	601
7-18-7	Whittle Corporation	Petroedge Resources, LLC	LB 237	136
7-18-7	Petroedge Resources, LLC	Petroedge Resources, LLC	LB 237	515
7-18-7	Quest Eastern Resources, LLC (Petroedge Resources LLC.)	Quest Cherokee, LLC	LB 246	1062
7-18-7	Postrock Mid Continent Production, LLC	PostRock Eastern Production, LLC	LB 254	553
7-18-7	Stephen J. Moriarty, solely in his capacity as Chapter 11 Trustee for PostRock Energy Corp.	UIV, LLC	LB 297	556
7-18-7	UIV, LLC	Alpha Helix Energy, LLC	LB 297	587
7-18-7	710 Corporation	Whittle Corporation	LB 308	27
7-18-7	Whittle Corp., Montani Energy, LLC, Haught Energy Corp., and Alpha Helix Energy, LLC	Burning Springs Energy, LLC	LB 308	796
7-18-7	Burning Springs Energy, LLC	HG Energy II Appalachia, LLC	INS#	201800006269

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RITCHIE County 11:33:25 AM 01/11/2019
Instrument No 201800006269
Date Recorded 07/19/2018
Document Type A08G
Pages Recorded 21
Book-Page 316-372-392
Recording Fee \$21.00
Additional \$8.00

msc838

ASSIGNMENT OF OIL AND GAS LEASES

This ASSIGNMENT OF OIL AND GAS LEASES is made and entered into this 1st day of July, 2018 by and between **BURNING SPRINGS ENERGY, LLC**, a Delaware limited liability company whose address is 5260 Dupont Road, Parkersburg, WV 26101, the ("Assignor"), and **HG ENERGY II APPALACHIA, LLC**, a Delaware limited liability company whose address is 5260 Dupont Road, Parkersburg, WV 26101, the ("Assignee").

For and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby **GRANT, BARGAIN, SELL, CONVEY, ASSIGN, TRANSFER, SET OVER AND DELIVER** unto Assignee, any and all of Assignor's right, title and interest in and to any and all Oil, Gas or Surface Fee Interests, Oil and Gas Leases, Royalties, Surface Agreements, Rights of Way, Contracts, Agreements, or any other interest of any kind related to the exploration and development of Oil and Gas it may own in the state of West Virginia, including, but not limited to the oil and gas leases described on the attached Exhibit "A".

IN WITNESS WHEREOF, the undersigned has executed this instrument on the date of the acknowledgment annexed hereto.

[SIGNATURE PAGE TO FOLLOW]

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Assignor:
BURNING SPRINGS ENERGY, LLC
Jared Hall
By: Jared Hall
Its: President

Assignee:
HG ENERGY II APPALACHIA, LLC
Jared Hall
By: Jared Hall
Its: President

JAN 7 REC'D
2019

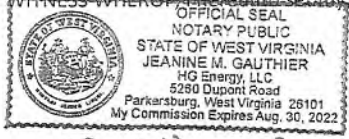
WV Department of
Environmental Protection

State of West Virginia
County of Wood §

On this 1 day of July, 2018, before me, the undersigned authority, personally appeared Jared Hall, who acknowledged to be the President of BURNING SPRINGS ENERGY, LLC, a Limited Liability Company, and that as such President, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the Limited Liability Company.

My Commission expires: Aug 30 2022

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



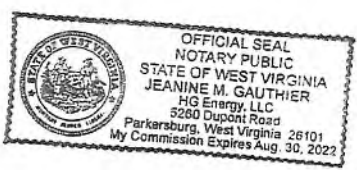
Jeanine M. Gauthier
Notary Public

State of West Virginia
County of Wood §

On this 1 day of July, 2018, before me, the undersigned authority, personally appeared Jared Hall, who acknowledged to be the President of HG ENERGY II APPALACHIA, LLC, a Limited Liability Company, and that as such President, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing the name of the Limited Liability Company.

My Commission expires: Aug 30 2022

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



Jeanine M. Gauthier
Notary Public

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Exhibit - A

LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
BSE-6	CAROLINE E. MIDDLETON & MICHAEL K. STEWART	Burning Springs Energy	2/5/2018	26	RITCHIE	314	158-162	201800003632
BSE-7	DANIEL S. & JEANNETTE M. MIDDLETON	Burning Springs Energy	1/29/2018	26	RITCHIE	314	163-167	201800003634
BSE-8	JAMES E. & PAULA L. LYNCH	Burning Springs Energy	4/7/2018	26	RITCHIE	314	682-684	201800004493
BSE-9	EDNA MAE HARDMAN AKA EDNA W. HARDMAN	Burning Springs Energy	2/17/2018	26	RITCHIE	314	685-687	201800004494
CAD 22	Brickerstaff	C.T. Moore and K.W. Fox	11/23/1957	16	RITCHIE	87	35	
CAD18	R. Dawson	N.G. Busch	3/5/1978	76	RITCHIE	125	283	
CAD19	C.W. Kemp	N.G. Busch	12/1/1977	171	RITCHIE	125	285	
CAD20	A.L. Hays	W.R. Hays and A.G. Roberts	6/16/1920	50	RITCHIE	44	341	
CAD21	E.C. Dawson No 1	Shannon Dawson	5/20/1935	22.5	RITCHIE	63	458	
CAD23	L. Wilson	K.W. Fox and C.T. Moore	1/28/1958	90	RITCHIE	88	183	
CAD24	G.M. Haught	Guy R. Sinsel & Lee Shaffer	4/16/1910	84	RITCHIE	33	438	
108166-00	CRANE, WALTER C	HG ENERGY, LLC	4/5/2012	16.75	RITCHIE	256	337	
108166-01	WILSON, EMMETT G & BESSIE I	HG ENERGY, LLC	4/5/2012	16.75	RITCHIE	256	334	
108166-02	SIMMONS, RICHARD W AGENT FOR LILA M	HG ENERGY, LLC	4/5/2012	16.75	RITCHIE	256	624	
108185-00	SAMPSON, CYRUS J AND HELEN L	HG ENERGY, LLC	10/7/2012	4.25	RITCHIE	258	997	
108245-00	HAYS, THOMAS R JR & KATHERINE	HG ENERGY, LLC	1/1/2013	62	RITCHIE	264	204	
108245-01	ERLICHMAN, BONNIE HAYS & JOSEPH S	HG ENERGY, LLC	5/3/2013	62	RITCHIE	264	210	
108245-02	HAYS, JEANE ANN	HG ENERGY, LLC	5/7/2013	62	RITCHIE	264	566	
108245-03	STRICCHIOLA, SHARON L	HG ENERGY, LLC	6/19/2013	60	RITCHIE	265	195	
108245-04	SEE, RICHARD MICHAEL	HG ENERGY, LLC	9/8/2014	62	RITCHIE	277	26	
108245-05	SEE, ROBERT EDWARD & JUDITH P	HG ENERGY, LLC	9/13/2014	62	RITCHIE	277	428	
108259-00	SEE, RICHARD MICHAEL	HG ENERGY, LLC	6/24/2013	121.6	RITCHIE	265	207	
108259-01	RICE, STEPHEN WAYNE & ELIZABETH	HG ENERGY, LLC	6/15/2013	121.6	RITCHIE	265	204	
108259-02	LIGUORI, FRANK J SR BY ATTY IN FACT	HG ENERGY, LLC	7/1/2013	121.6	RITCHIE	265	634	
108259-03	SEE, ROBERT EDWARD & JUDITH P	HG ENERGY, LLC	7/9/2013	121.6	RITCHIE	265	817	
108259-04	BYRD, SANDRA M	HG ENERGY, LLC	9/25/2013	121.6	RITCHIE	267	489	
108259-05	MCKEOWN, JOAN J	HG ENERGY, LLC	10/22/2013	121.6	RITCHIE	267	982	
108259-06	JOERNDT, LOUISE	HG ENERGY, LLC	10/22/2013	121.6	RITCHIE	268	270	
108259-07	RICE, THOMAS M & AMY C	HG ENERGY, LLC	3/9/2014	121.6	RITCHIE	271	230	
108260-00	HAYS-NERLINO, JEANE ANN	HG ENERGY, LLC	6/25/2013	36.75	RITCHIE	265	198	
108260-01	HAYS, THOMAS R JR & KATHERINE M	HG ENERGY, LLC	7/3/2013	36.75	RITCHIE	265	637	
108260-02	ERLICHMAN, BONNIE HAYS & JOSEPH S	HG ENERGY, LLC	7/12/2013	36.75	RITCHIE	265	820	
108260-03	STRICCHIOLA, SHARON L	HG ENERGY, LLC	7/19/2013	36.75	RITCHIE	266	18	
108363-00	HAYS, THOMAS R JR & KATHERINE M	HG ENERGY, LLC	9/15/2014	5.9	RITCHIE	277	425	
108363-01	HAYS, JEANE ANN	HG ENERGY, LLC	9/12/2014	5.9	RITCHIE	277	431	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
108363-02	W R HAYS	HG ENERGY, LLC	9/23/2014	5.9	RITCHIE	278	667	
108363-03	W R HAYS FARM	HG ENERGY, LLC	9/17/2014	5.9	RITCHIE	278	670	
108364-00	HAYS, THOMAS R JR & KATHERINE M	HG ENERGY, LLC	9/12/2014	44	RITCHIE	277	434	
108364-01	HAYS, JEANE ANN	HG ENERGY, LLC	9/12/2014	44	RITCHIE	277	437	
108364-02	M L PATTERSON	HG ENERGY, LLC	9/23/2014	44	RITCHIE	278	673	
108364-03	M L PATTERSON	HG ENERGY, LLC	9/17/2014	44	RITCHIE	278	676	
108365-00	HAYS JR, THOMAS R ET UX	HG ENERGY, LLC	9/15/2014	48	RITCHIE	279	847	
108365-01	NEELY, DIONNE	HG ENERGY, LLC	9/16/2014	48	RITCHIE	279	850	
108365-02	I R WILSON	HG ENERGY, LLC	9/18/2014	48	RITCHIE	279	853	
108365-03	I R WILSON	HG ENERGY, LLC	9/19/2014	48	RITCHIE	279	856	
108365-04	I R WILSON	HG ENERGY, LLC	9/19/2014	48	RITCHIE	279	859	
108365-05	I R WILSON	HG ENERGY, LLC	9/30/2014	48	RITCHIE	279	862	
108365-06	I R WILSON	HG ENERGY, LLC	9/17/2014	48	RITCHIE	279	865	
108365-07	I R WILSON	HG ENERGY, LLC	9/23/2014	48	RITCHIE	279	868	
108365-08	I R WILSON	HG ENERGY, LLC	9/17/2014	48	RITCHIE	279	871	
108365-09	MCGINNIS, ARLENE WASS BY KATHRYN M MCDON	HG ENERGY, LLC	10/28/2014	48	RITCHIE	279	616	
108365-10	SCOTT, CAROL ANN & STEVE F SCOTT	HG ENERGY, LLC	10/27/2014	48	RITCHIE	279	619	
108365-11	HAMRICK JR, HARRISON GORE & RENEE HAMRIC	HG ENERGY, LLC	10/30/2014	48	RITCHIE	279	622	
108365-12	HAMRICK, PATRICIA LEIGH	HG ENERGY, LLC	10/31/2014	48	RITCHIE	279	625	
108365-13	HAMRICK, VIRGINIA LEE	HG ENERGY, LLC	10/28/2014	48	RITCHIE	279	628	
108365-14	HAMRICK, ROY DOLLIVER	HG ENERGY, LLC	10/29/2014	48	RITCHIE	279	631	
108365-15	HAMRICK, EUGENE L	HG ENERGY, LLC	10/31/2014	48	RITCHIE	279	634	
108365-16	HAMRICK, JAMES	HG ENERGY, LLC	11/13/2014	48	RITCHIE	279	637	
108365-17	POLLY, PHYLLIS ELAINE & WILLIAM L POLLY	HG ENERGY, LLC	11/13/2014	48	RITCHIE	279	640	
108365-18	PLEOHN, PATRICIA WASS & HARRY C PLEOHN	HG ENERGY, LLC	11/5/2014	48	RITCHIE	279	643	
108365-19	STEPHENSON, STEVEN G & ABBI K	HG ENERGY, LLC	11/28/2014	48	RITCHIE	280	760	
108365-20	HAMRICK, DAVID WAYNE	HG ENERGY, LLC	12/19/2014	48	RITCHIE	281	407	
108365-21	HAMRICK, JONATHAN	HG ENERGY, LLC	11/7/2014	48	RITCHIE	281	410	
108365-22	HAMRICK MARK	HG ENERGY, LLC	12/21/2014	48	RITCHIE	282	1	
108365-23	I R WILSON FARM	HG ENERGY, LLC	1/31/2015	48	RITCHIE	282	258	
108365-24	I R WILSON FARM	HG ENERGY, LLC	9/15/2014	48	RITCHIE	282	265	
108365-25	I R WILSON FARM	HG ENERGY, LLC	1/30/2015	48	RITCHIE	282	272	
108366-00	WILLIAM DAWSON HEIRS	HG ENERGY, LLC	9/15/2014	100	RITCHIE	177	440	
108367-00	LE HAYS	HG ENERGY, LLC	9/8/2014	1	RITCHIE	277	443	
108374-00	JAMES WILSON	HG ENERGY, LLC	11/3/2014	82.58	RITCHIE	279	646	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
108374-01	HAYS JR, THOMAS R & KATHERINE M HAYS	HG ENERGY, LLC	11/4/2014	82.58	RITCHIE	279	650	
108374-02	ERLICHMAN BONNIE HAYS & JOSEPH ERLICHMAN	HG ENERGY, LLC	11/13/2014	82.58	RITCHIE	279	653	
108374-03	JAMES WILSON	HG ENERGY, LLC	11/14/2014	82.58	RITCHIE	282	275	
108374-04	JAMES WILSON FARM	HG ENERGY, LLC	1/26/2015	82.58	RITCHIE	282	278	
108374-05	JAMES WILSON FARM	HG ENERGY, LLC	1/27/2015	82.58	RITCHIE	282	281	
108374-06	JAMES WILSON FARM	HG ENERGY, LLC	1/26/2015	82.58	RITCHIE	282	284	
108374-08	JAMES WILSON	HG ENERGY, LLC	11/26/2014	82.58	RITCHIE	282	290	
108374-09	JAMES WILSON FARM	HG ENERGY, LLC	1/31/2015	82.58	RITCHIE	283	239	
108374-10	JAMES WILSON FARM	HG ENERGY, LLC	1/24/2015	82.58	RITCHIE	283	242	
108391-00	HAYS, THOMAS R & KATHERINE M HAYS	HG ENERGY, LLC	11/18/2014	5.25	RITCHIE	280	775	
108391-01	JAMES WILSON FARM	HG ENERGY, LLC	12/9/2014	5.25	RITCHIE	281	413	
108391-02	JAMES WILSON FARM	HG ENERGY, LLC	12/17/2014	5.25	RITCHIE	281	416	
108391-03	JAMES WILSON	HG ENERGY, LLC	1/3/2015	5.25	RITCHIE	281	419	
108391-04	JAMES WILSON	HG ENERGY, LLC	1/2/2015	5.25	RITCHIE	281	422	
108391-05	JAMES WILSON	HG ENERGY, LLC	1/3/2015	5.25	RITCHIE	281	425	
108391-06	CRAWFORD, THOMAS J & PAULA A CRAWFORD	HG ENERGY, LLC	1/3/2015	5.25	RITCHIE	281	428	
108391-07	JAMES WILSON	HG ENERGY, LLC	12/23/2014	5.25	RITCHIE	281	431	
108391-08	JAMES WILSON	HG ENERGY, LLC	1/5/2015	5.25	RITCHIE	281	434	
108391-09	JAMES WILSON	HG ENERGY, LLC	1/8/2015	5.2	RITCHIE	282	4	
108391-10	JAMES WILSON	HG ENERGY, LLC	1/12/2015	5.25	RITCHIE	282	7	
108391-11	JAMES WILSON	HG ENERGY, LLC	1/13/2015	5.25	RITCHIE	282	10	
108391-12	JAMES WILSON	HG ENERGY, LLC	1/13/2015	5.25	RITCHIE	282	13	
108391-13	JAMES WILSON	HG ENERGY, LLC	1/14/2015	5.25	RITCHIE	282	16	
108391-14	JAMES WILSON	HG ENERGY, LLC	1/19/2015	5.25	RITCHIE	282	33	
108391-15	JAMES WILSON	HG ENERGY, LLC	1/20/2015	5.25	RITCHIE	282	34	
108391-16	JAMES WILSON	HG ENERGY, LLC	1/15/2015	5.25	RITCHIE	282	19	
108391-17	JAMES WILSON	HG ENERGY, LLC	1/22/2015	5.25	RITCHIE	282	22	
108391-18	JAMES WILSON FARM	HG ENERGY, LLC	1/30/2015	5.25	RITCHIE	282	293	
108391-19	JAMES WILSON FARM	HG ENERGY, LLC	1/10/2015	5.25	RITCHIE	283	245	
108391-20	JAMES WILSON FARM	HG ENERGY, LLC	2/20/2015	5.25	RITCHIE	283	248	
108391-21	JAMES WILSON FARM	HG ENERGY, LLC	3/5/2015	5.25	RITCHIE	283	975	
108391-22	JAMES WILSON FARM	HG ENERGY, LLC	3/10/2015	5.25	RITCHIE	283	988	
108391-23	JAMES WILSON FARM	HG ENERGY, LLC	3/13/2015	5.25	RITCHIE	283	991	
108391-24	JAMES WILSON FARM	HG ENERGY, LLC	7/14/2015	5.25	RITCHIE	286	806	
108392-00	Q.E BENNETT FARM	HG ENERGY, LLC	1/31/2015	34.25	RITCHIE	282	299	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
108392-01	Q E BENNETT FARM	HG ENERGY, LLC	1/30/2015	34.25	RITCHIE	282	305	
108392-02	Q E BENNETT	HG ENERGY, LLC	1/30/2015	34.25	RITCHIE	282	308	
108392-03	Q E BENNETT FARM	HG ENERGY, LLC	3/23/2015	34.25	RITCHIE	283	985	
108393-00	RUTH SNODGRASS	HG ENERGY, LLC	2/3/2015	89.15	RITCHIE	282	311	
108396-00	H.S. WILSON	HG ENERGY, LLC	2/2/2020	540	RITCHIE	50	355	
108400-00	MARY S. GAMBRILL	E. E. Pope	9/30/2024	559	RITCHIE	50	340	
2567-00	JOHN MAHANEY	HG ENERGY, LLC	1/2/2000	51	RITCHIE	9	302	
52492-50	CAMPBELL, C, ET UX	HG ENERGY, LLC	2/21/1898	66	RITCHIE	9	365	
53400-50	KEMP, ELIZABETH ET VIR	HG ENERGY, LLC	4/2/2004	62.5	RITCHIE	19	523	
57053-50	SMITH, ANTHONY ET AL	SOUTH PENN OIL CO.	9/24/2007	555	RITCHIE	23	353	
57115-00	LIGHT, HELEN W	HG ENERGY, LLC	8/18/1982	125	RITCHIE	148	39	
57235-50	HAYS, MARTHA, ET VIR	SOUTH PENN OIL CO.	11/27/2007	231	RITCHIE	23	421	
57624-50	HAUGHT, JOSHUA ET UX	SOUTH PENN OIL CO.	3/2/2008	265	RITCHIE	24	95	
59227-50	CRAFT, J R ET UX	HG ENERGY, LLC	2/12/2009	104	RITCHIE	25	152	
59229-50	FETTY, GC, ET UX	HG ENERGY, LLC	2/13/2009	40	RITCHIE	25	162	
68782-50	KEMP, NEWTON, ET UX	HG ENERGY, LLC	10/14/2015	13	RITCHIE	36	28	
70290-50	PARKS, J A, ET AL	HG ENERGY, LLC	12/2/2016	100	RITCHIE	39	136	
71615-50	MORRIS, W B ET UX	HG ENERGY, LLC	5/17/2018	113	RITCHIE	40	177	
77649-50	MORRIS, W B ET UX	HG ENERGY, LLC	1/10/2027	106	RITCHIE	53	210	
77650-50	FOY, W P ET AL	SOUTH PENN OIL CO.	1/27/2027	95	RITCHIE	53	124	
80326-50	HAYMOND, CHRISTINA, ET VI	HG ENERGY, LLC	2/20/1942	72	RITCHIE	71	598	
882-00	J. O. LYNCH	HG ENERGY, LLC	10/6/2013	44.5	RITCHIE	69	226	
HAUGHT-1	May Hatfield, widow; Marion Goff and Jesse L. Goff, wife	Victor Bronnen and L. W. Davis	09/01/1960	72	RITCHIE	92	203	
HAUGHT-10	William Charles VanCampen Et Al	Warren R. Haught and Eldon J. Haught	12/27/1976	312	RITCHIE	122	565	
HAUGHT-103	A. M. Douglass Estate	Warren R. Haught	12/18/1980	175	RITCHIE	134	716	
HAUGHT-104	Mabel N. Null, widow	Warren R. Haught	07/11/1979	55.5	RITCHIE	128	115	
HAUGHT-105	Elizabeth I. Fisher and Elmer W. Fisher, her husband	Warren R. Haught	07/11/1979	55.5	RITCHIE	128	119	
HAUGHT-106	Loren D. Newton and Sally Newton, his wife	Warren R. Haught	07/11/1979	55.5	RITCHIE	128	113	
HAUGHT-107	Stephen C. Douglass, Jr. and Paulline K. Douglass	Warren R. Haught	08/03/1979	55.5	RITCHIE	128	117	
HAUGHT-108	Thomas C. Duerr Et Al	Whittle Corporation	06/17/2003	39	RITCHIE	234	595	
HAUGHT-109	Thomas C. Duerr and Susan Atkinson	Whittle Corporation	09/21/2017	39	RITCHIE	311	538	
HAUGHT-11	Appalachian Royalties, Inc.	Warren R. Haught	06/29/1977	100	RITCHIE	123	526	
HAUGHT-110	Thomas C. Duerr and Susan I. Duerr	Warren R. Haught	09/27/1978	48	RITCHIE	126	294	
HAUGHT-111	Raymond L. Duvall and Teresa Duvall, his wife	Whittle Corporation	06/25/2015	55.25	RITCHIE	284	851	
HAUGHT-112	Vada Britton Et Al	Warren R. Haught	12/28/1976	167	RITCHIE	123	86	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-113	Barbara Doak Et Al	Warren R. Haught	01/06/1977	167	RITCHIE	123	726	
HAUGHT-114	Jessie Sheets, widow, Eugene Sheets and Janet Sheets, his wife	Whittle Corporation	07/28/2006	139	RITCHIE	241	947	
HAUGHT-115	E. Buck and Fannie E. Buck, his wife	G. H. Earnest and S. S. Porter	2/2/1898	42	RITCHIE	8	327	
HAUGHT-116	Earnest C. Goff, single	Braxton Oil and Gas Corporation	02/19/1975	224	RITCHIE	119	261	
HAUGHT-12	Dennis A. Ingram and Lora A. Ingram	William R. Mossor	07/07/1982	10.81	RITCHIE	146	124	
HAUGHT-120	Floyd B. Eddy Et Al	Glenn L. Haught	11/06/1945	148	RITCHIE	76	163	
HAUGHT-121	Janie E. Spiker, Atty for Robert E. Eddy, Estate	Dale Wolfe	04/05/1980	31.25	RITCHIE	130	614	
HAUGHT-123	Edwin F. Deem and Margaret S. Deem, his wife	H. M. Deem	02/02/1981	26	RITCHIE	134	215	
HAUGHT-124	Edwin F. Deem and Margaret S. Deem, his wife	H. M. Deem	11/04/1980	26	RITCHIE	133	177	
HAUGHT-125	Eldon J. Haught	Petroedge Resources (WV) LLC	01/16/2006	101	RITCHIE	240	444	
HAUGHT-126	Charles A. and Mildred I. Elliott, husband and wife	Warren R. Haught	12/17/1987	36.147	RITCHIE	198	245	
HAUGHT-127	Harry E. Moats and Irene J. Moats, his wife	Warren R. Haught	06/20/1975	25	RITCHIE	125	478	
HAUGHT-128	Harrison Evans	Warren R. Haught	06/20/1978	25	RITCHIE	125	476	
HAUGHT-13	A. W. Smith and E. V. Smith	W. B. Morris	02/14/1910	143	RITCHIE	32	548	
HAUGHT-130	Fay Ayers, a widow	Durl Fluharty and H. L. Ice	12/23/1960	76	RITCHIE	93	81	
HAUGHT-132	W. E. Cunningham B. A. Cunningham and Frances M. Cunningham	Dale Wolfe	12/28/1976	100	RITCHIE	124	153	
HAUGHT-133	Blonnie Crooks, widow	Dale Wolfe	04/26/1976	100	RITCHIE	120	178	
HAUGHT-134	The W. A. Flesher heirs	Dale Wolfe	04/10/1976	100	RITCHIE	121	175	
HAUGHT-135	Leroy Lowden and Phyllis Lowden, wife	Dale Wolfe	04/10/1976	100	RITCHIE	121	317	
HAUGHT-136	Robert R. Jones	Petroedge Resources (WV) LLC	05/01/2006	100	RITCHIE	241	81	
HAUGHT-137	Robert R. Jones and Judith Jones, wife	Warren R. Haught	04/27/1982	100	RITCHIE	143	789	
HAUGHT-138	W. E. Cunningham Et Al	Dale Wolfe	12/28/1976	100	RITCHIE	124	153	
HAUGHT-139	Guy Fluharty and Iva Fluharty, his wife	W. H. Bickel	05/20/1930	112	RITCHIE	57	535	
HAUGHT-14	Haught Family Trust	Whittle Corporation	06/09/2017	79.5	RITCHIE	308	554	
HAUGHT-140	S. S. Fluharty Et Al	W. H. Bickel	05/28/1931	176	RITCHIE	59	43	
HAUGHT-141	John E. Foster and Edna Foster, his wife	Warren R. Haught	04/21/1981	10	RITCHIE	136	394	
HAUGHT-142	Ralph Foster and Arlene Foster, his wife	Willard E. Ferrell	01/21/1969	96	RITCHIE	113	217	
HAUGHT-143	Ralph Foster Et Al	H. M. Deem	02/04/1978	40	RITCHIE	124	595	
HAUGHT-144	Howard L. Fowler and B. Pearl Fowler, his wife	Phillip Lemon	07/30/1957	50.75	RITCHIE	86	229	
HAUGHT-145	Pearl Fowler/Howard Fowler, mother and son	Ancient Oil Company, Inc.	01/25/1989	50.75	RITCHIE	202	203	
HAUGHT-146	T. R. Frashure and Emogene, his wife	Warren R. Haught	03/01/1979	96.5	RITCHIE	126	769	
HAUGHT-147	Fred H Goff, Sr. Et Al	Haught, Inc.	5/3/1984	50	RITCHIE	171	580	
HAUGHT-148	Fred H. Goff, Sr., widower	Haught Incorporated	02/15/1982	50	RITCHIE	141	637	
HAUGHT-149	Fred H. Goff, Sr., widower and Fred H. Goff, Jr.	Haught Oil Producing Corp.	05/10/1985	50	RITCHIE	181	144	
HAUGHT-15	Bertha McCoy and W. Robert McCoy	Warren R. Haught	07/27/1978	62.4	RITCHIE	125	719	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-150	Lottie Frederick Et Al	Warren R. & Eldon Haught, dba Glenn L. Haught & Sons	07/05/1976	22	RITCHIE	121	428	
HAUGHT-151	George Morris and Garnet Morris, husband and wife	Clyde Kelly	06/17/1964	309.5	RITCHIE	102	419	
HAUGHT-152	Paul McCoy and Evelyn McCoy	Glenn L. Haught	03/06/1961	49	RITCHIE	93	483	
HAUGHT-153	William Robert McHenry	Glenn L. Haught	03/03/1956	49	RITCHIE	84	439	
HAUGHT-154	Dewey Gibson and Neva Gibson, his wife	W. H. Bickel	11/01/1933	49	RITCHIE	62	381	
HAUGHT-155	George M. Cokeley and L. P. Cokeley	R. E. L. Frymier	09/15/1916	9.75	RITCHIE	41	528	
HAUGHT-156	A. Goff and Sons Trust	Whittle Corporation	01/04/2008	129	RITCHIE	246	547	
HAUGHT-157	Haught Family Trust	Whittle Corporation	02/15/2008	129	RITCHIE	246	559	
HAUGHT-158	Kiedaish and Summers Enterprises	Whittle Corporation	01/04/2008	129	RITCHIE	246	553	
HAUGHT-162	H. L. Ayers and Fay Ayers, his wife	L. E. Haught and Glenn L. Haught	07/01/1955	35	RITCHIE	84	177	
HAUGHT-163	Daniel Haddox and Clareth Haddox	Warren R. Haught	05/31/1979	105	RITCHIE	127	219	
HAUGHT-164	J. A. Haddox, single	Glenn L. Haught, Warren R. Haught, Eldon J. Haught, dba Glenn L. Haught and Sons	02/11/1963	20	RITCHIE	99	354	
HAUGHT-165	G. W. Hammer and Ann Hammer, his wife	J. W. Hammer and Co	10/24/1908	141	RITCHIE	24	370	
HAUGHT-166	Pearl D. Hammett and Charles L. Hammett, her husband	Warren R. Haught and Eldon J. Haught	09/11/1976	125	RITCHIE	121	726	
HAUGHT-167	Pearl D. Hammett and Charles L. Hammett, her husband	Warren R. Haught and Eldon J. Haught	09/11/1976	80	RITCHIE	121	722	
HAUGHT-168	Harlie G. Smith	North Hills Investment Co., Inc	04/03/1976	60	RITCHIE	120	740	
HAUGHT-169	David L. Schlarb, a married man acting in his own right	Whittle Corporation	06/20/2006	65	RITCHIE	241	522	
HAUGHT-170	David L. Schlarb, a married man acting in his own right	Whittle Corporation	09/11/2013	65	RITCHIE	267	310	
HAUGHT-171	Harry D. Barker and Virgie M. Barker, his wife	Whittle Corporation	04/24/2009	67	RITCHIE	248	531	
HAUGHT-172	Jack Morris and Leonatine Morris	Allstate Energy Corp.	04/06/1981	21.75	RITCHIE	135	298	
HAUGHT-173	May Samples and J. W. Samples Ruby Furbie and Wayne Furbie	Haught Drilling Co. L.E. Haught Atty-in-fact	02/01/1964	17.5	RITCHIE	109	179	
HAUGHT-174	Pansy S. Lemon Et Al	Glenn L. Haught, Warren R. Haught, Eldon J. Haught, dba Glenn L. Haught and Sons	09/08/1966	150	RITCHIE	108	232	
HAUGHT-175	G. W. Braden and M. C. Braden, his wife	J. W. Marshall	06/12/1900	56	RITCHIE	18	246	
HAUGHT-176	Kenneth Hayes and Lorraine Hayes, his wife	Warren R. Haught and Eldon J. Haught, dba Glenn L. Haught & Sons	06/21/1976	60	RITCHIE	123	15	
HAUGHT-177	Violet Hedge for herself and as Attorney for W. R. Hedge Helrs	Warren R. Haught	06/22/1983	46	RITCHIE	159	437	
HAUGHT-178	T. Ralph Hedge Et Al	Warren R. Haught	10/06/1982	46	RITCHIE	159	80	
HAUGHT-179	Haught Family Trust	Whittle Corporation	08/08/2012	20.88	RITCHIE	257	869	
HAUGHT-180	Haught Family Trust, Ira M. Haught Trustee	Whittle Corporation	08/08/2012	1.75	RITCHIE	257	869	
HAUGHT-181	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	06/09/2017	10.63	RITCHIE	310	931	
HAUGHT-182	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	08/08/2012	10.75	RITCHIE	257	869	
HAUGHT-183	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	09/26/2012	100	RITCHIE	258	727	
HAUGHT-184				11.03	RITCHIE			
HAUGHT-185	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	08/08/2012	115.25	RITCHIE	257	869	
HAUGHT-186	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	06/09/2017	116	RITCHIE	308	541	
HAUGHT-188	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	08/08/2012	12.39	RITCHIE	257	869	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-19	Douglas H. Baker	Whittle Corporation	05/17/2007	13.5	RITCHIE	244	95	
HAUGHT-191	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	130	RITCHIE	257	869	
HAUGHT-192	Ethel M. Batson, Agent for M. A. Edgell, Widow	Glenn L. Haught	05/23/1954	134	RITCHIE	83	313	
HAUGHT-194	Haught Family Trust	Whittle Corporation	05/24/2006	138	RITCHIE	241	350	
HAUGHT-196	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	16.25	RITCHIE	257	869	
HAUGHT-197	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	17.52	RITCHIE	257	869	
HAUGHT-199	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	18.91	RITCHIE	257	869	
HAUGHT-2	Allen A. Ayers and Eva J. Ayers, his wife	Glenn L. Haught	05/31/1956	50	RITCHIE	84	446	
HAUGHT-20	Guy R. and Patsy Baker	Warren R. Haught	07/28/1983	75	RITCHIE	163	346	
HAUGHT-200	Warren R. Haught Et Al	Williams Well Surveys, Inc.	10/01/1975	180	RITCHIE	119	323	
HAUGHT-201	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	20.88	RITCHIE	257	869	
HAUGHT-202	F. R. Kincaid Et Al	Warren Haught	09/13/1977	21.28	RITCHIE	124	140	
HAUGHT-203	Haught Family Trust (dated April 17, 1989), Ira M. Haught, trustee	Whittle Corporation	06/09/2017	22.33	RITCHIE	308	541	
HAUGHT-204	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	06/28/2017	24	RITCHIE	257	48	
HAUGHT-205	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	24.375	RITCHIE	257	869	
HAUGHT-206	Haught Family Trust c/o Ira M. Haught	Whittle Corporation	06/06/2011	243.83	RITCHIE	253	1029	
HAUGHT-207	Ira Haught	Petroedge Resources	12/06/2006	20	RITCHIE	243	713	
HAUGHT-208	Haught Family Trust	Whittle Corporation	02/27/2006	20	RITCHIE	240	392	
HAUGHT-209	JP Morgan Chase Bank	Petroedge Resources	02/08/2007	20	RITCHIE	243	720	
HAUGHT-21	Robert M. Bargeloh	Warren R. Haught	05/27/1977	45	RITCHIE	123	447	
HAUGHT-210	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	26.2	RITCHIE	257	869	
HAUGHT-211	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	28.72	RITCHIE	257	869	
HAUGHT-212	Haught Family Trust- Ira M. Haught, Trustee	Antero Resources Corporation	02/20/2015	21.417	RITCHIE	285	96	
HAUGHT-213	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	8.88	RITCHIE	257	869	
HAUGHT-214	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	09/26/2012	30	RITCHIE	258	727	
HAUGHT-215	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	30	RITCHIE	257	869	
HAUGHT-216	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	30.375	RITCHIE	257	869	
HAUGHT-217	Marc Charles Cinqmars Et Al	Whittle Corporation	07/07/2005	323.2	RITCHIE	239	103	
HAUGHT-218	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	33	RITCHIE	257	869	
HAUGHT-219	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	06/09/2017	33.25	RITCHIE	310	931	
HAUGHT-22	Louise H. Osborne Et Al	Whittle Corporation	02/19/1999	159.78	RITCHIE	227	819	
HAUGHT-221	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	06/09/2017	35	RITCHIE	308	541	
HAUGHT-222	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	35.5	RITCHIE	257	869	
HAUGHT-223	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	36	RITCHIE	257	869	
HAUGHT-224	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	38.675	RITCHIE	257	869	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-225	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	06/09/2017	39	RITCHIE	308	541	
HAUGHT-226	Haught Family Trust, Ira M. Haught, Trustee	Whittle Corporation	05/23/2014	40	RITCHIE	273	254	
HAUGHT-227	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	08/08/2012	42	RITCHIE	257	869	
HAUGHT-228	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	06/09/2017	43	RITCHIE	308	550	
HAUGHT-229	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	43	RITCHIE	257	869	
HAUGHT-23	Patricia L. Gault and DeWayne M. Gault	Whittle Corporation	02/15/2002	15	RITCHIE	232	887	
HAUGHT-230	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	44.77	RITCHIE	257	869	
HAUGHT-234	Nellie G. Braden	Warren R. & Eldon J. Haught, dba Glenn L. Haught & Sons	07/09/1976	49.5	RITCHIE	121	517	
HAUGHT-235	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	49.5	RITCHIE	257	869	
HAUGHT-236	Haught Family Trust	Whittle Corporation	06/01/2006	50	RITCHIE	241	365	
HAUGHT-237	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	50	RITCHIE	257	869	
HAUGHT-238	G.Y. Rexroad Et Al	The Carter Oil Company	07/25/1907	139	RITCHIE	23	293	
HAUGHT-239	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	55.5	RITCHIE	257	869	
HAUGHT-24	Nannie Batson, Tessie Lesson and Cleo Lesson, her husband	Derrick Drilling Co.	06/05/1978	94.5	RITCHIE	125	430	
HAUGHT-240	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	55.5	RITCHIE	257	869	
HAUGHT-241	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	55.6	RITCHIE	257	869	
HAUGHT-242	Thomas L. Mason, Jr.	Warren R. Haught	07/14/1980	55.7	RITCHIE	132	27	
HAUGHT-243	Haught Family Trust	Whittle Corporation	03/16/2005	56	RITCHIE	237	686	
HAUGHT-244	Marvin G. Haught, Robert Bruce Haught and Karen M. Fritz	Whittle Corporation	03/25/2005	56	RITCHIE	237	763	
HAUGHT-245	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	6.5	RITCHIE	257	869	
HAUGHT-248	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	63.12	RITCHIE	257	869	
HAUGHT-249	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Top Drilling Corporation	06/28/2012	63.55	RITCHIE	257	53	
HAUGHT-25	Margaret C. Beard and John H. Beard	Haught Oil Producing Corp.	02/12/1985	15.5	RITCHIE	178	501	
HAUGHT-250	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	06/09/2017	70.75	RITCHIE	308	541	
HAUGHT-251	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	73.5	RITCHIE	257	869	
HAUGHT-252	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	76.25	RITCHIE	257	869	
HAUGHT-253	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	8.25	RITCHIE	257	869	
HAUGHT-254	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	06/09/2017	8.5	RITCHIE	310	931	
HAUGHT-255	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	8.76	RITCHIE	257	869	
HAUGHT-256	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	8.88	RITCHIE	257	869	
HAUGHT-258	H. H. Smith and Gertrude Smith, his wife	Glenn L. Haught	12/02/1960	84	RITCHIE	93	43	
HAUGHT-259	H. H. Smith and Gertrude Smith, his wife	Glenn L. Haught	12/02/1960	84	RITCHIE	93	43	
HAUGHT-26	John H. Beard	Warren R. Haught	02/12/1982	15.5	RITCHIE	141	852	
HAUGHT-260	Haught Family Trust (dated April 17, 1989), Ira M. Haught trustee	Whittle Corporation	08/08/2012	84.55	RITCHIE	257	869	
HAUGHT-261	H. H. Smith and Gertrude Smith, his wife	Cecil Speck	5/16/1963	136.5	RITCHIE	99	426	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-262	Barbara J. Miller & Roger D. Freshour	710 Corporation	10/20/2006	126	RITCHIE	242	514	
HAUGHT-263	Rachel Bryan Et Al	H. E. Pollock	03/19/1923	18.5	RITCHIE	49	148	
HAUGHT-264	William T. Kearns Et Al	H. E. Pollock	09/01/1923	18.5	RITCHIE	49	151	
HAUGHT-265	George A. Arner Et Al	H. E. Pollock	09/01/1923	18.5	RITCHIE	49	153	
HAUGHT-266	Jefferson Hoover and A.B. Hoover	The Carter Oil Company	07/25/1907	90	RITCHIE	23	291	
HAUGHT-267	L. A. Hoover and Wm Hoover, her husband	J. W. Marshall	2/21/1898	50	RITCHIE	9	393	
HAUGHT-268	Joyce Ann Howard	Warren R. Haught	07/19/1977	17	RITCHIE	123	638	
HAUGHT-269	James M. Howard and Helen Howard, his wife and Sarah C. Howard	Warren R. Haught	07/01/1977	86.5	RITCHIE	123	640	
HAUGHT-27	Mary B. Dowling and William F. S. Dowling, her husband	Warren R. Haught	02/12/1982	15.5	RITCHIE	141	865	
HAUGHT-270	Hoy Gary and Faw Gary	Warren R. Haught	07/20/1978	92	RITCHIE	125	691	
HAUGHT-271	Homer S. Morris, Jr. and Freda Morris, his wife	Glenn L. Warren R. and Eldon J. Haught	08/01/1967	205	RITCHIE	110	6	
HAUGHT-272	Hayward W. Hudkins, a married man acting in his own right	Whittle Corporation	01/29/2011	50	RITCHIE	252	932	
HAUGHT-273	Hayward Hudkins, a married man acting in his own right	Whittle Corporation	01/29/2011	88.2	RITCHIE	252	938	
HAUGHT-274	Haught Family Trust c/o Ira M. Haught	Whittle Corporation	02/29/2012	88.2	RITCHIE	255	600	
HAUGHT-275	Robert R. Jones	Whittle Corporation	07/23/2011	83	RITCHIE	254	339	
HAUGHT-276	Annabelle Hooper	Whittle Corporation	01/29/2011	88.2	RITCHIE	252	996	
HAUGHT-277	Clinton Eugene Sheets, a married man acting in his own right	Whittle Corporation	02/10/2011	88.2	RITCHIE	252	1006	
HAUGHT-278	Clarence Udell Sheets	Whittle Corporation	01/29/2011	88.2	RITCHIE	252	1001	
HAUGHT-279	Lyda R. Casto	Whittle Corporation	03/24/2012	88.2	RITCHIE	256	352	
HAUGHT-28	Helen B. Earle and James G. Earle	Haught Incorporated	02/12/1982	15.5	RITCHIE	141	634	
HAUGHT-280	Randy E. Huff Et Al	710 Corporation	10/16/2003	60	RITCHIE	235	162	
HAUGHT-281	D. E. Huff Et Al	Hope Natural Gas Company	07/15/1952	60	RITCHIE	81	141	
HAUGHT-283	John H. Hyman	W. H. Bickel	05/20/1932	234	RITCHIE	59	514	
HAUGHT-284	Ira M. Haught	Whittle Corporation	03/20/2014	168.44	RITCHIE	271	379	
HAUGHT-285	Clifford Donovan Jobes	Whittle Corporation	03/21/2014	169.75	RITCHIE	271	623	
HAUGHT-286	Patricia A. Godbey	Whittle Corporation	04/01/2014	168.44	RITCHIE	272	100	
HAUGHT-287	Beverly Dianne Cryslar	Whittle Corporation	04/14/2014	168.44	RITCHIE	272	88	
HAUGHT-288	Dwight T. Goff and Dedra Griffith Goff, his wife	Whittle Corporation	04/14/2014	168.44	RITCHIE	272	94	
HAUGHT-289	A. J. Ireland Et Al	W. H. Bickel	02/22/1933	184	RITCHIE	60	319	
HAUGHT-29	George Beard and Pauline Beard	Warren R. Haught	08/11/1981	15.5	RITCHIE	138	375	
HAUGHT-290	Jessie Elder Et Al	Warren R. Haught	11/02/1978	55.2	RITCHIE	126	290	
HAUGHT-291	Charles J. and Eleanor Hatfield, his wife	Glenn L. Haught	02/11/1956	58.3	RITCHIE	84	440	
HAUGHT-294	Ralph Jett and Eva Jett, husband and wife	W. R. Development Co., Inc.	08/21/1986	148	RITCHIE	191	378	
HAUGHT-3	Rachel M. Lemon Et Al	Wm. M. Cox	08/25/1911	270	RITCHIE	29	60	
HAUGHT-30	Belle Pritchard, a widow	Ritchie A. Ireland	02/14/1947	415	RITCHIE	77	19	

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Lease Number	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-301	Lawrence S. Keith and Rose Keith, his wife	Warren R. and Barry D. Haught	06/05/1978	62.25	RITCHIE	125	344	
HAUGHT-302	Goldie Kester	Warren R. Haught	06/15/1979	45	RITCHIE	127	361	
HAUGHT-31	Belle Pritchard Et Al	Ritchie A. Ireland	01/06/1950	415	RITCHIE	79	108	
HAUGHT-311	Paul S. Lawrence Et Al	Glenn L. Haught & Sons	02/11/1963	61.25	RITCHIE	98	429	
HAUGHT-312	Lettie Elder, widow	Warren R. Haught	11/08/1978	46.2	RITCHIE	126	300	
HAUGHT-313	Lettie Elder	Warren R. Haught	08/14/1978	66	RITCHIE	125	752	
HAUGHT-314	L. W. Davis and his wife, Delta N. Davis	Warren R. Haught	07/08/1978	57	RITCHIE	125	498	
HAUGHT-315	Luvina Elliott Et Al	Warren R. Haught and Eldon J. Haught DBA Glenn L. Haught & Sons	06/22/1976	28	RITCHIE	121	592	
HAUGHT-316	Amos Scott Et Al	Warren R. Haught	06/07/1976	50	RITCHIE	121	394	
HAUGHT-317	Virginia A. Lamp Et Al	Warner-Quinlan Company	12/27/1920	70.5	RITCHIE	44	319	
HAUGHT-318	Mark A. Lamp, a married man acting in his own right	Whittle Corporation	03/29/2006	169	RITCHIE	241	102	
HAUGHT-319	Lela Atkins	Whittle Corporation	12/22/2008	169	RITCHIE	248	755	
HAUGHT-320	Bernard F. Starr and James E. Starr	Whittle Corporation	01/26/2006	169	RITCHIE	240	114	
HAUGHT-321	Emogene Carpenter, Power of Attorney for Wilma I. Lamp Bircher	Whittle Corporation	02/23/2006	169	RITCHIE	240	256	
HAUGHT-322	Deborah A. Schafer, Power of Attorney for Thelma Lamp	Whittle Corporation	02/24/2006	169	RITCHIE	240	261	
HAUGHT-323	Larry K. Lamp, single	Whittle Corporation	02/24/2006	169	RITCHIE	240	266	
HAUGHT-324	Haught Family Trust	Whittle Corporation	03/15/2006	169	RITCHIE	240	377	
HAUGHT-325	Lela M. Atkins, a married woman acting in her own right	Whittle Corporation	04/11/2006	169	RITCHIE	241	173	
HAUGHT-326	Sharlene Pittman, widow	Whittle Corporation	04/12/2006	169	RITCHIE	241	13	
HAUGHT-327	Betty Adams, a married woman acting in her own right	Whittle Corporation	04/12/2006	169	RITCHIE	241	18	
HAUGHT-328	Martha Morris, a married woman acting in her own right	Whittle Corporation	04/12/2006	169	RITCHIE	241	23	
HAUGHT-329	William A. Pittman, a married man acting in his own right	Whittle Corporation	04/12/2006	169	RITCHIE	241	178	
HAUGHT-33	Eva L. Black	Dale Wolfe	11/26/1980	3	RITCHIE	133	310	
HAUGHT-330	Marvin L. Cunningham	Whittle Corporation	12/22/2008	169	RITCHIE	247	898	
HAUGHT-331	Harle G. Layfield and Linda D. Layfield, his wife	Warren R. Haught	08/25/1981	16	RITCHIE	138	148	
HAUGHT-332	A. J. Layfield Et Al	Dale Wolfe	03/20/1976	85	RITCHIE	120	42	
HAUGHT-333	J. B. Lemon, et al	Southern Oil Company	02/16/1924	616	RITCHIE	50	63	
HAUGHT-334	D. C. Valentine Et Al	Southern Oil Company	06/28/1924	616	RITCHIE	50	74	
HAUGHT-335	George Pribble	Southern Oil Co.	06/09/1925	616	RITCHIE	51	9	
HAUGHT-336	Lenore Smith, a married woman acting in her own right	Whittle Corporation	11/12/2008	91.85	RITCHIE	247	685	
HAUGHT-337	Dr. Terry L. Elliott	Whittle Corporation	12/08/2008	87.85	RITCHIE	247	903	
HAUGHT-338	Judith A. Shannon	Whittle Corporation	12/05/2008	87.85	RITCHIE	247	854	
HAUGHT-339	Louie G. Elliott, a married man acting in his own right	Whittle Corporation	11/21/2008	87.85	RITCHIE	247	753	
HAUGHT-34	Haught Family Trust	Whittle Corporation	06/15/2017	168.25	RITCHIE	308	766	
HAUGHT-340	Marie N. Whitmore	Whittle Corporation	12/09/2008	87.85	RITCHIE	247	908	

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Lease Number	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-341	Ray Elliott, a married man acting in his own right	Whittle Corporation	11/26/2008	87.85	RITCHIE	247	758	
HAUGHT-342	Vonda Carpenter, widow	Whittle Corporation	12/02/2008	87.85	RITCHIE	247	859	
HAUGHT-343	Lella C. Locke, widow and Pearl Cunningham, widow	Emery D. Locke	01/18/1957	39	RITCHIE	86	435	
HAUGHT-344	Louise H. Osborne Et Al	710 Corporation	05/12/2004	112.9	RITCHIE	235	495	
HAUGHT-345	Haught Family Trust	Whittle Corporation	07/11/2017	72.23	RITCHIE	310	445	
HAUGHT-346	Shirley Tibbs and Alma Tibbs, his wife	Phillip Lemon	05/06/1957	67	RITCHIE	85	531	
HAUGHT-347	L. Bassell Maxwell, et al	L. E. Haught and Glenn L. Haught	03/02/1956	57.76875	RITCHIE	97	372	
HAUGHT-348	Mansfield Haught and Icy V. Haught, husband and wife	F. A. Deem	05/28/1930	90	RITCHIE	58	325	
HAUGHT-349	Mansfield Haught and Icie Viola Haught, his wife	Glenn L. Haught	05/27/1947	50	RITCHIE	77	153	
HAUGHT-35	Warren R. Haught and Lenna G. Haught	710 Corporation	08/04/1988	50	RITCHIE	200	754	
HAUGHT-350	N. M. Welch et ux	Phillip Lemon	05/15/1961	69	RITCHIE	94	31	
HAUGHT-354	Angel Hubbard	Ritchie Petroleum Corporation	01/10/2011	65	RITCHIE	252	1033	
HAUGHT-355	Martha Smith Heirs - Gladys M. Zinn, Atty	Glenn L. Haught	12/06/1960	66.25	RITCHIE	93	209	
HAUGHT-356	C. Leonard Hawkins	Warren R. Haught	03/21/1979	50	RITCHIE	126	45	
HAUGHT-357	Carrie A. Lee	Warren R. Haught	08/31/1978	50	RITCHIE	126	47	
HAUGHT-358	W. Lyle Jones, Trustee of Martin Brothers Company	Warren R. Haught	08/22/1978	50	RITCHIE	126	49	
HAUGHT-359	Warren R. Haught and Lenna G. Haught, his wife	Warren R. Haught	03/22/1979	50	RITCHIE	126	744	
HAUGHT-36	Evelyn McCoy Et Al	Glenn L. Haught	09/02/1962	30	RITCHIE	97	319	
HAUGHT-360	C. Leonard Hawkins and Hazel Hawkins, his wife	Warren R. Haught	03/21/1979	50	RITCHIE	126	772	
HAUGHT-361	James W. Elliott and Wanda Jean Elliott (Mary C. Elliott Heirs)	Warren R. Haught	12/03/1975	70	RITCHIE	126	379	
HAUGHT-362	Mary C. Elliott Heirs	Warren R. Haught	12/03/1975	70	RITCHIE	126	357	
HAUGHT-363	Velma Collins and C. H. Collins, her husband	Warren R. Haught	12/03/1975	70	RITCHIE	127	97	
HAUGHT-364	Mary C. Elliott Heirs	Warren R. Haught	12/03/1975	70	RITCHIE	126	359	
HAUGHT-365	Edna B. Oldaker Et Al	Warren R. Haught	07/19/1978	70	RITCHIE	126	377	
HAUGHT-366	Mary C. Elliott Heirs	Warren R. Haught	12/03/1975	70	RITCHIE	126	381	
HAUGHT-367	Bonnie C. Keister (Mary C. Elliott Heirs)	Warren R. Haught	12/03/1975	70	RITCHIE	126	383	
HAUGHT-368	Robert Elliott Et Al	Warren R. Haught	12/03/1975	70	RITCHIE	126	385	
HAUGHT-369	L. Bassell Maxwell, et al (Maxwell Heirs) (several parties listed)	P. O. Burgy	11/18/1954	161.625	RITCHIE	83	280	
HAUGHT-37	Sharon Hazelett Border Et Al	Whittle Corporation	01/18/2007	296.53	RITCHIE	243	52	
HAUGHT-370	Paul McCoy and Evelyn McCoy	Glenn L. Haught	04/12/1951	56	RITCHIE	80	399	
HAUGHT-371	Mary A. McFadden Hrs. Et Al	Warren R. Haught	07/20/1979	100	RITCHIE	128	39	
HAUGHT-372	Margaret Lowther Est.	Warren R. Haught	04/09/1979	100	RITCHIE	127	93	
HAUGHT-373	Warren R. Haught and Lenna G. Haught, his wife	Warren R. Haught	03/22/1979	100	RITCHIE	126	746	
HAUGHT-374	Mary Gardner signing as executor for Mary A. McFadden	Warren R. Haught	08/24/1978	100	RITCHIE	126	53	
HAUGHT-375	Allen C. Cunningham	Warren R. Haught	07/25/1978	100	RITCHIE	125	766	

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Exhibit - A

LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-376	Lillian R. Price and Evert Price, her husband	Warren R. Haught	05/28/1977	100	RITCHIE	124	277	
HAUGHT-378	Larry McHenry and Tammy McHenry, his wife	Whittle Corporation	05/15/2003	9.0625	RITCHIE	234	84	
HAUGHT-379	Ira M. Haught	Whittle Corporation	12/29/2010	41.934	RITCHIE	252	759	
HAUGHT-38	B. P. Ayers and Avla Ayers	Glenn L. Haught	02/20/1954	58.6	RITCHIE	83	37	
HAUGHT-380	Amy C. Haught	Whittle Corporation	12/29/2010	41.934	RITCHIE	253	31	
HAUGHT-383	Blaine M. Miller Et Al	Glenn L. Haught and Sons	04/14/1977	77	RITCHIE	123	227	
HAUGHT-384	Harry E. Moats and Irene J. Moats, husband and wife	Warren R. Haught	03/16/1978	14	RITCHIE	125	17	
HAUGHT-385	J. W. Grimm Et Al	W. H. Satterfield	09/27/1919	109.5	RITCHIE	47	157	
HAUGHT-386	Samuel C. Hammett, Sheri L. Hammett and Robert E. Hammett	Petroedge Resources (WV) LLC	11/22/2005	109.5	RITCHIE	239	732	
HAUGHT-387	Janet Smith	Petroedge Resources (WV) LLC	04/03/2006	109	RITCHIE	241	117	
HAUGHT-388	Janis Marshall	Petroedge Resources (WV) LLC	04/03/2006	109	RITCHIE	241	126	
HAUGHT-389	Robert L. Bills Et Al	Warren R. Haught	05/25/1978	119	RITCHIE	125	557	
HAUGHT-39	H. L. Brissey, single	J. W. Cushing	06/21/1976	90	RITCHIE	122	757	
HAUGHT-390	Dessie Grimm Heirs	Warren R. Haught	07/29/1978	119	RITCHIE	126	288	
HAUGHT-391	Dessie Grimm Heirs	Warren R. Haught	07/24/1978	119	RITCHIE	126	298	
HAUGHT-392	Dessie Grimm Heirs	Warren R. Haught	08/16/1978	119	RITCHIE	126	296	
HAUGHT-393	Dessie Grimm Heirs Et Al	Warren R. Haught	12/16/1980	119	RITCHIE	133	783	
HAUGHT-394	Robert L. Bills Et Al	Warren R. Haught	12/16/1980	119	RITCHIE	134	291	
HAUGHT-395	Dessie Grimm Heirs, Robert D. Grimm and Arlene A. Grimm, his wife	Warren R. Haught	02/27/1981	119	RITCHIE	134	690	
HAUGHT-396	Dessie Grimm Heirs, May Couch and Melvin J. Couch, her husband	Warren R. Haught	12/16/1980	119	RITCHIE	133	562	
HAUGHT-397	Robert L. Bills Et Al	Warren R. Haught	05/29/1980	119	RITCHIE	131	407	
HAUGHT-398	Dessie Grimm Heirs, Mary Couch and Melvin J. Couch, her husband	Warren R. Haught	07/23/1980	119	RITCHIE	132	364	
HAUGHT-399	Dessie Grimm Heirs Et Al	Warren R. Haught	07/23/1980	119	RITCHIE	132	481	
HAUGHT-4	Margaret Simmons	Warren R. Haught	01/22/1980	101.5	RITCHIE	130	245	
HAUGHT-40	Haught Family Trust	Whittle Corporation	11/30/2006	66	RITCHIE	246	498	
HAUGHT-400	Dessie Grimm Heirs, Robert D. Grimm (single)	Warren R. Haught	07/23/1980	119	RITCHIE	132	484	
HAUGHT-401	Robert L. Bills Et Al	Warren R. Haught	07/23/1980	119	RITCHIE	132	490	
HAUGHT-402	Warren R. Haught and Lenna G. Haught, his wife	TIG Corporation	12/11/1986	32.25	RITCHIE	193	70	
HAUGHT-403	Warren R. Haught and Lenna G. Haught, his wife	710 Corporation	08/09/1985	32.25	RITCHIE	182	453	
HAUGHT-404	Clarence W. Mutschelknaus, Sr. and Mary Mutschelknaus, his wife	Whittle Corporation	09/19/2011	199	RITCHIE	255	208	
HAUGHT-405	Haught Family Trust (dated April 17, 1989), Ira M. Haught, Trustee	Whittle Corporation	01/30/2014	199	RITCHIE	270	208	
HAUGHT-406	Clarence W. Mutschelknaus, Sr. and Mary Mutschelknaus, his wife	Whittle Corporation	10/31/2008	199	RITCHIE	247	1087	
HAUGHT-407	Everett Haught Et Al	Warren R. Haught and Eldon J. Haught, dba Glenn L. Haught & Sons	07/15/1976	136	RITCHIE	122	568	
HAUGHT-408	Luvina Elliott Et Al	Warren R. Haught and Eldon J. Haught, dba Glenn L. Haught & Sons	06/22/1976	136	RITCHIE	121	650	
HAUGHT-409	Norma Nottingham Gill Et Al	Petroleum Development Corporation	02/18/1983	47.5	RITCHIE	160	691	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-41	A. Bertram Conaway	Whittle Corporation	07/05/2007	66	RITCHIE	244	984	
HAUGHT-410	Norma Nottingham Gill Et Al	Petroleum Development Corporation	02/18/1983	47.5	RITCHIE	163	75	
HAUGHT-411	Mary E. Nay Et Al	Warren R. Haught	06/26/1979	141.97	RITCHIE	127	377	
HAUGHT-412	Mary E. Nay Et Al	Warren R. Haught	06/26/1979	141.97	RITCHIE	128	77	
HAUGHT-413	Mary E. Nay Et Al	Warren R. Haught	08/17/1979	141.97	RITCHIE	128	178	
HAUGHT-414	David R. Newton, a married man acting on his own right	Whittle Corporation	06/09/2011	165.5	RITCHIE	253	1088	
HAUGHT-415	Elton G. Clevenger, a married man acting on his own right	Whittle Corporation	06/09/2011	165.5	RITCHIE	253	1093	
HAUGHT-416	Loren D. Newton and Sally Newton, his wife	Warren R. Haught	08/28/1978	72.5	RITCHIE	126	742	
HAUGHT-417	C. Leonard Hawkins	Warren R. Haught	09/07/1978	72.5	RITCHIE	126	367	
HAUGHT-418	C. Leonard Hawkins and Hazel Hawkins, his wife	Warren R. Haught	09/07/1978	72.5	RITCHIE	126	763	
HAUGHT-419	Elizabeth J. Fisher	Warren R. Haught	08/09/1978	72.5	RITCHIE	126	371	
HAUGHT-42	Russell J. Bumgardner	Whittle Corporation	07/09/2007	66	RITCHIE	244	1064	
HAUGHT-420	Loren D. Newton	Warren R. Haught	08/28/1978	72.5	RITCHIE	126	375	
HAUGHT-421	Elizabeth Fisher and Elmer Fisher, her husband	Warren R. Haught	08/09/1978	72.5	RITCHIE	126	794	
HAUGHT-422	Mabel N. Null	Warren R. Haught	08/28/1978	72.5	RITCHIE	126	373	
HAUGHT-423	Carrie L. B. Davis and Henry A. Davis, her husband	Warren R. Haught	11/21/1978	72.5	RITCHIE	126	369	
HAUGHT-424	Carrie A. Lee	Warren R. Haught	08/08/1978	72.5	RITCHIE	126	365	
HAUGHT-425	Haught Family Trust	Whittle Corporation	02/27/2006	80	RITCHIE	240	397	
HAUGHT-426	Ora L. Goff, widow	Warren R. Haught and Eldon J. Haught, dba Glenn L. Haught & Sons	05/05/1977	36	RITCHIE	123	246	
HAUGHT-427	Orla J. Adams, widower	Warren R. Haught	08/28/1978	77	RITCHIE	126	63	
HAUGHT-428	E. May Summers, widow	Glenn L. Haught and Sons	04/14/1977	76	RITCHIE	123	223	
HAUGHT-429	Paul M. Ayers and Madge R. Ayers, his wife	Glenn L. Haught and Sons	04/14/1977	76	RITCHIE	123	82	
HAUGHT-43	Evonne K. Middaugh	Whittle Corporation	06/28/2007	66	RITCHIE	244	994	
HAUGHT-430	Haught Family Trust	Whittle Corporation	06/09/2017	76	RITCHIE	308	546	
HAUGHT-431	James William Coddington and Helen Grace Coddington, wife	J & J Enterprises, Inc.	04/30/1984	33	RITCHIE	170	470	
HAUGHT-432	Warren R. Haught & Lenna G. Haught, husband and wife	Whittle Corporation	09/26/2012	9.84375	RITCHIE	262	478	
HAUGHT-433	L. Bassel Maxwell, et al	Sam T. Mallison	07/01/1952	115.2	RITCHIE	81	215	
HAUGHT-434	L. Bassel Maxwell, et al	Sam T. Mallison	07/01/1952	284.8	RITCHIE	81	215	
HAUGHT-435	T. McFadden Heirs	Dale Wolfe	04/07/1976	92	RITCHIE	122	13	
HAUGHT-436	P. C. Parks Heirs and Wm. McFadden Heirs	Dale Wolfe	04/07/1976	92	RITCHIE	121	202	
HAUGHT-437	Wm. McFadden Heirs	Dale Wolfe	04/07/1976	92	RITCHIE	121	300	
HAUGHT-438	S. H. Parks Et Al	Glenn L. Haught	08/25/1956	85	RITCHIE	85	8	
HAUGHT-439	Kenneth Perine and Patricia Perine, his wife	Warren R. Haught	09/10/1979	29.9	RITCHIE	128	341	
HAUGHT-44	Trisha A. Hendrickson	Whittle Corporation	06/28/2007	66	RITCHIE	244	999	
HAUGHT-440	Kenneth Perine and Patricia Perine, his wife	Warren R. Haught	09/10/1979	33.75	RITCHIE	128	339	

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Lease Number	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-444	Eleanore Phillips, a married woman acting in her own right	Whittle Corporation	10/12/2005	50	RITCHIE	239	764	
HAUGHT-445	Michael D. Phillips, a married man acting in his own right	Whittle Corporation	10/17/2005	50	RITCHIE	239	509	
HAUGHT-446	Paul R. Phillips, single	Whittle Corporation	10/05/2005	50	RITCHIE	239	774	
HAUGHT-447	Patricia Mae Simons, widow	Petroedge Resources (WV) LLC	04/24/2006	50	RITCHIE	241	63	
HAUGHT-448	Betty Jane Black, a married woman acting in her own right	Whittle Corporation	10/17/2005	50	RITCHIE	239	514	
HAUGHT-449	Susan Sanders	Whittle Corporation	10/17/2005	50	RITCHIE	239	617	
HAUGHT-45	Steven L. Bumgardner	Whittle Corporation	06/28/2007	66	RITCHIE	244	989	
HAUGHT-450	Sharon Williams, a married woman acting in her own right	Whittle Corporation	10/17/2005	50	RITCHIE	239	519	
HAUGHT-451	Donald Jack Dillworth, a married man acting in his own right	Whittle Corporation	10/13/2005	50	RITCHIE	239	759	
HAUGHT-452	Thomas Virgil Dillworth, Jr.	Whittle Corporation	10/13/2005	50	RITCHIE	239	754	
HAUGHT-453	Donald J. Wolfe, a married man acting in his own right	Whittle Corporation	10/12/2005	50	RITCHIE	239	769	
HAUGHT-454	Darlene Sue Tillack, a married woman acting in her own right	Whittle Corporation	10/17/2005	50	RITCHIE	239	504	
HAUGHT-455	Charles Franklin Powers	Whittle Corporation	10/04/2007	58.75	RITCHIE	245	312	
HAUGHT-456	Mrs. Dorothy M. Rader Et Al	Glenn L. Haught	08/01/1960	134	RITCHIE	92	453	
HAUGHT-458	Elsie Prunty, widow	Warren R. and Barry D. Haught	06/20/1978	53	RITCHIE	125	418	
HAUGHT-459	Edith G. Farris Et Al	Glenn L. Haught, Warren R. Haught, and Eldon Haught, DBA Glenn L. Haught & Sons	06/10/1963	25	RITCHIE	100	453	
HAUGHT-46	Vada Britton Et Al	Warren R. Haught	12/28/1976	82	RITCHIE	123	92	
HAUGHT-460	Ruth E. Johnson Et Al	Warren R. Haught	02/15/1983	25	RITCHIE	155	526	
HAUGHT-461	Frank I. and Pearl E. Allebaugh, his wife	Warren R. Haught	04/05/1983	25	RITCHIE	156	551	
HAUGHT-462	Roxie B. Evans and Harrison Evans, her husband	W. H. Bickel	02/18/1933	40.7375	RITCHIE	60	301	
HAUGHT-463	Ralph Wilson	Haught Inc	11/17/1977	376	RITCHIE	124	324	
HAUGHT-464	Mrs. H. G. Raiguel, widow	Dale Wolfe	06/20/1978	31	RITCHIE	125	812	
HAUGHT-465	Dewey L. Reed and Icie L. Reed	Stonestreet Lands Co	06/30/1976	45.5	RITCHIE	121	322	
HAUGHT-466	W. F. Reger and Clorus A. Reger, his wife	Paul McCoy	04/08/1957	59	RITCHIE	86	169	
HAUGHT-467	Christopher Lee Reger	Whittle Corporation	03/28/2007	44.62	RITCHIE	243	887	
HAUGHT-468	Ashford Rexroad and Virginia Rexroad, his wife	Warren R. and Eldon J. Haught, dba Glenn L. Haught & Sons	10/18/1976	45	RITCHIE	122	72	
HAUGHT-469	Ashford Rexroad Et Al	Warren R. and Eldon J. Haught, dba Glenn L. Haught & Sons	10/18/1976	50.5	RITCHIE	122	74	
HAUGHT-47	Cora Elder, widow	Warren R. Haught	07/27/1978	65.2	RITCHIE	125	769	
HAUGHT-472	Bernard W. Richards and Fredia Richards, his wife	Warren R. Haught	07/15/1979	114	RITCHIE	127	483	
HAUGHT-473	Dorothy M. Riddle Et Al	Gas & Oil, Inc.	05/14/2012	51.75	RITCHIE	256	808	
HAUGHT-474	Henry M. Riddle and Joy E. Riddle, husband and wife	Stephen D. Ward/Gas & Oil, Inc.	08/24/2012	51.75	RITCHIE	258	298	
HAUGHT-475	Junior Riddle and Ruth C. Riddle, his wife	Warren R. Haught & Eldon J. Haught, dba Glenn L. Haught & Sons	10/27/1969	78.5	RITCHIE	113	180	
HAUGHT-476	Junior Riddle Et Al	Arthur L. Nicholson and Kenneth F. Nicholson	09/21/1961	17	RITCHIE	95	103	
HAUGHT-479	Lloyd Weaver and Flora G. Weaver, husband and wife	John L. Shrader and Virgil F. Corbitt	01/29/1947	137	RITCHIE	80	26	
HAUGHT-48	Claude and Clyde Swedley	Allstate Energy Corporation	02/16/1980	86	RITCHIE	130	190	

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Exhibit - A

LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-480	Haught Family Trust	Whittle Corporation	03/15/2006	124.5	RITCHIE	240	372	
HAUGHT-481	Jed D. Rollins Et Al	Whittle Corporation	05/19/2006	124.5	RITCHIE	241	344	
HAUGHT-482	T. N. Johnson Et Al	F. A. Deem	11/24/1930	50	RITCHIE	59	29	
HAUGHT-483	G. P. Ryan Heirs OGM	Warren R. Haught	06/12/1978	107	RITCHIE	125	504	
HAUGHT-484	G. P. Ryan Heirs OGM	Warren R. Haught	06/12/1978	107	RITCHIE	125	502	
HAUGHT-485	Spouses of the G. P. Ryan Heirs	Warren R. Haught	05/30/1979	107	RITCHIE	127	384	
HAUGHT-487	Betty L. Semmelman, Attorney-In-Fact	Warren R. Haught	10/18/1977	99.43215	RITCHIE	124	269	
HAUGHT-488	Betty Semmelman and Betty Semmelman, Attorney In Fact	Warren R. Haught	02/07/1981	99.43215	RITCHIE	152	744	
HAUGHT-489	Helen M. White, Agent for Harvey Marsh Estate	Warren R. Haught	12/28/1977	99.43215	RITCHIE	124	456	
HAUGHT-49	Fred V. Wilson Et Al	W. H. Mossor	11/29/1978	120	RITCHIE	126	459	
HAUGHT-490	Betty Semmelman, Attorney In Fact	Warren R. Haught	10/18/1977	100	RITCHIE	124	271	
HAUGHT-491	Betty Semmelman, attorney in fact	Warren R. haught	10/18/1977	102.5	RITCHIE	124	273	
HAUGHT-494	James E. Sheets, a married man acting in his own right	Whittle Corporation	01/18/2006	158.53	RITCHIE	240	99	
HAUGHT-495	Claren D. Sheets, a married man acting in his own right	Whittle Corporation	01/18/2006	158.53	RITCHIE	240	64	
HAUGHT-496	Donald L. Sheets, a married man acting in his own right	Whittle Corporation	01/12/2006	158.53	RITCHIE	239	1013	
HAUGHT-497	Freda Arnold, widow	Whittle Corporation	01/18/2006	158.53	RITCHIE	239	1073	
HAUGHT-498	Martha Montgomery, Power of Attorney for Louanna Hall, widow	Whittle Corporation	01/18/2006	158.53	RITCHIE	240	54	
HAUGHT-499	Rosalie King, widow	Whittle Corporation	01/18/2006	158.53	RITCHIE	240	129	
HAUGHT-5	Warren R. Haught and Lenna C. Haught, his wife	710 Corporatton	06/03/1985	113.5	RITCHIE	192	256	
HAUGHT-50	C. F. Wilson Et Al	H. M. Deem	02/04/1961	122	RITCHIE	93	243	
HAUGHT-500	Vivian Cromer, a married woman acting in her own right	Whittle Corporation	01/18/2006	158.53	RITCHIE	240	84	
HAUGHT-502	James P. Hall, et al	Whittle Corporation	07/20/2011	41.36	RITCHIE	254	485	
HAUGHT-503	Rosalie King	ANTERO	07/20/2011	60.13	RITCHIE	275	219	
HAUGHT-504	Judith A. Long, POA for Rosalie King	Whittle Corporation	06/10/2015	41.36	RITCHIE	287	613	
HAUGHT-505	Loraine Sheets, widow, by Nanette Brinkley, her Power of Attorney	Whittle Corporation	05/27/2015	41.36	RITCHIE	287	603	
HAUGHT-506	Donald L. Sheets	Whittle Corporation	07/14/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-507	Donald L. Sheets, a married man acting in his own right	Whittle Corporation	05/09/2015	41.36	RITCHIE	287	588	
HAUGHT-508	Freda Arnold by James P. Hall her Power of Attorney	Whittle Corporation	07/20/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-509	Claren D. Sheets	Whittle Corporation	07/18/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-51	Rachel R. Cain Et Al	H. E. Pollock	02/17/1927	168	RITCHIE	53	283	
HAUGHT-510	Claren D. Sheets	Whittle Corporation	05/12/2015	41.36	RITCHIE	287	593	
HAUGHT-511	Vivian L. Cromer	Whittle Corporation	07/18/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-512	Vivian L. Cromer	Whittle Corporation	05/15/2015	41.36	RITCHIE	287	608	
HAUGHT-513	Stephen V. Hall	Whittle Corporation	07/20/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-514	Theresa D. Uthe	Whittle Corporation	05/14/2015	41.36	RITCHIE	287	618	

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LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-515	Doris Jean Farrah	Whittle Corporation	07/13/2015	41.36	RITCHIE	287	628	
HAUGHT-516	Medeta Treadwell	Whittle Corporation	05/14/2015	41.36	RITCHIE	287	598	
HAUGHT-517	Martha Ann Montgomery	Whittle Corporation	06/08/2015	41.36	RITCHIE	287	623	
HAUGHT-518	William G. Hall	Whittle Corporation	07/17/2015	41.36	RITCHIE	287	583	
HAUGHT-519	Valerie Reed	Whittle Corporation	07/25/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-520	Brenda Hall	Whittle Corporation	07/25/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-521	Julie Cristenson	Whittle Corporation	07/25/2011	41.36	RITCHIE	Unrecorded		
HAUGHT-522	Jessie Sheets, widow; Eugene Sheets and Janet Sheets, his wife	Whittle Corporation	03/16/2005	67.75	RITCHIE	237	712	
HAUGHT-528	Dale Simmons Et Al	John L. Shrader and D. E. Lleving	12/05/1947	18	RITCHIE	77	563	
HAUGHT-529	Dale Simmons Et Al	John L. Shrader and D. E. Lleving	12/05/1947	18	RITCHIE	79	503	
HAUGHT-530	Sarah A. Denning Et Al	G. H. Fox	09/12/1918	50	RITCHIE	42	373	
HAUGHT-532	Lawrence Simmons	Whittle Corporation	11/15/2007	75	RITCHIE	246	124	
HAUGHT-533	D. O. Skinner Et Al	Victor Brannon and L. W. Davis	11/14/1960	11	RITCHIE	93	235	
HAUGHT-537	R. A. Scott Et Al	Phillip Lemon	04/12/1940	70	RITCHIE	70	370	
HAUGHT-54	Elton G. Clevenger	Whittle Corporation	06/09/2011	165.5	RITCHIE	253	1093	
HAUGHT-543	Ronnie Smith	Jonathan Stansberry	12/28/1994	205	RITCHIE	220	699	
HAUGHT-55	David R. Newlon, a married man acting on his own right	Whittle Corporation	06/09/2011	165.5	RITCHIE	253	1088	
HAUGHT-56	Warren R. Haught and Lenna G. Haught	Whittle Corporation	01/18/2016	35	RITCHIE	293	434	
HAUGHT-560	Cline V. Snider and Esther L. Snider	Warren R. Haught and Eldon J. Haught, DBA Glenn L. Haught and Sons	06/24/1976	249	RITCHIE	121	351	
HAUGHT-561	E. B. Smith and Susie Smith	Glenn L. Haught	02/20/1954	239	RITCHIE	82	568	
HAUGHT-562	Ira M. Haught Et Al	Whittle Corporation	12/03/2007	80	RITCHIE	245	660	
HAUGHT-563	Robert Sommerville Et Al	Warren R. Haught	12/01/1977	100	RITCHIE	124	508	
HAUGHT-564	Mrs. Frank Pribble	Warren R. Haught	12/01/1977	100	RITCHIE	125	332	
HAUGHT-566	Zetah Mabel Eddy, widow	Whittle Corporation	10/26/2005	39	RITCHIE	239	427	
HAUGHT-567	L. M. Stanley and Vonda Stanley, his wife	Warren R. Haught	10/19/1978	41.5	RITCHIE	126	243	
HAUGHT-568	E. A. Stephens and S. Stephens	D. Gunsburg	09/03/1900	50	RITCHIE	13	108	
HAUGHT-569	Kenneth A. Stephens and Frances M. Stephens, his wife	Panther Fuel Company	02/20/1982	115	RITCHIE	141	743	
HAUGHT-57	Madge L. Crane	Warren R. Haught	09/01/1979	146.43	RITCHIE	129	466	
HAUGHT-570	Kenneth Stephens Et Al	Pather Fuel Company	04/23/1982	146.75	RITCHIE	149	545	
HAUGHT-571	Charley G. Swadley and Anna Swadley, his wife	Warren R. Haught	01/28/1982	10	RITCHIE	141	108	
HAUGHT-572	Charle W. Swadley, single and Clyde Swadley, single	Stonestreet Lands Co.	06/14/1976	208	RITCHIE	121	171	
HAUGHT-573	Charley G. Swadley and Anna Jane Swadley, his wife	Warren R. Haught	03/19/1980	41.373	RITCHIE	130	627	
HAUGHT-574	Charley G. Swadley and Anna Jane Swadley, his wife	Warren R. Haught	01/30/1979	41.373	RITCHIE	126	648	
HAUGHT-575	Charley G. Swadley and Anna Swadley, his wife	Dale Wolfe	07/12/1976	76	RITCHIE	121	425	
HAUGHT-576	W. W. Tapp and Leona Tapp, his wife	B. W. Peebles	05/20/1903	18	RITCHIE	18	455	

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Exhibit - A

LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-577	Grover C. Taylor Et Al	G.L. Dudley Jr.	05/20/1950	577	RITCHIE	79	304	
HAUGHT-578	Warren R. Haught and Lenna G. Haught, husband and wife	Whittle Corporation	09/26/2012	9.84375	RITCHIE	262	478	
HAUGHT-579	Donald Eugene Tingler Et Al	710 Corporation	12/02/2004	47	RITCHIE	237	101	
HAUGHT-58	Madge L. Crane, widow	Warren R. Haught	09/01/1979	146.36	RITCHIE	129	466	
HAUGHT-580	St. Luke's United Methodist Church	710 Corporation	12/12/2005	47	RITCHIE	241	87	
HAUGHT-581	A. M. Dearman and Agnes Dearman, his wife	S. O. Prunty	12/09/1924	5	RITCHIE	50	330	
HAUGHT-582	Alma Vinson and Neal Vinson	North Hills Investment Co. Inc.	04/02/1976	63	RITCHIE	120	743	
HAUGHT-583	Alma Vinson and Neal Vinson	North Hills Investment Co. Inc.	04/02/1978	63	RITCHIE	125	63	
HAUGHT-584	The Volcanic Oil and Coal Company of West Virginia	Clifton Oil and Gas Company	05/29/1941	582	RITCHIE	70	489	
HAUGHT-585	Ira M. Haught Et Al	710 Corporation	03/01/2011	96.5	RITCHIE	253	508	
HAUGHT-586	Haught Family Trust	Whittle Corporation	08/17/2017	54	RITCHIE	310	936	
HAUGHT-587	Ira M. Haught Et Al	710 Corporation	03/01/2011	96.5	RITCHIE	253	508	
HAUGHT-588	Ralph J. Gibson	C. B. Smith	11/21/1955	125	RITCHIE	84	335	
HAUGHT-589	Wayne C. Sommerville	Whittle Corporation	11/05/2012	33.16	RITCHIE	259	495	
HAUGHT-59	Teresa D. Townsend Et Al	Whittle Corporation	11/04/2009	68.2	RITCHIE	249	980	
HAUGHT-590	Wayne C. Sommerville	Whittle Corporation	11/05/2012	94	RITCHIE	259	499	
HAUGHT-591	Wayne C. Sommerville, a married man acting in his own right	Whittle Corporation	10/05/2007	94	RITCHIE	245	317	
HAUGHT-594	Minter D. Waller, a married man acting in his own right	Whittle Corporation	11/16/2005	25	RITCHIE	239	622	
HAUGHT-595	Minter D. Waller	Whittle Corporation	11/09/2012	25	RITCHIE	260	545	
HAUGHT-596	Nellie Garvin, Widow	Glen B. Keller	01/07/1967	185	RITCHIE	108	548	
HAUGHT-597	Eltou A. and Hortense C. Snyder	Warren R. and Barry D. Haught	08/19/1977	148	RITCHIE	123	716	
HAUGHT-598	Noel Watson and Vera Watson, his wife	E. S. Gilmore	02/06/1950	150	RITCHIE	79	550	
HAUGHT-6	Allen A. Ayers and Eva J. Ayers, his wife	Glenn L. Haught	03/08/1954	52	RITCHIE	83	309	
HAUGHT-600	Mary Agnes Elder (widow)	Warren R. Haught	08/06/1979	75	RITCHIE	128	162	
HAUGHT-601	Bianche Wedekamm	Warren R. Haught	07/29/1977	30.1	RITCHIE	123	718	
HAUGHT-602	Joyce K. Burrows Et Al	Whittle Corporation	03/09/2006	150	RITCHIE	240	418	
HAUGHT-603	Joyce K. Burrows Et Al	Whittle Corporation	03/09/2006	150	RITCHIE	240	418	
HAUGHT-604	Mary M. Welch (widow) and Belva Welch (widow)	Warren R. Haught	05/17/1979	125	RITCHIE	127	199	
HAUGHT-605	C. A. Welch and Alice Welch, wife	C. E. Sarber	02/22/1926	125	RITCHIE	53	515	
HAUGHT-606	Mace Welch Hrs Et Al	Phillip Lemon	08/15/1960	105	RITCHIE	92	211	
HAUGHT-607	B. F. Welch and Mae E. Welch, husband and wife	John L. Shrader and Virgil F. Corbitt	03/13/1947	51	RITCHIE	76	525	
HAUGHT-612	The Mable H. Wiant heirs (Mary L. Davis and William Davls)	Dale Wolfe	10/15/1980	82.5	RITCHIE	132	767	
HAUGHT-613	Frank Dayton Et Al	Ted B. Law Enterprises	05/25/1978	140	RITCHIE	126	116	
HAUGHT-614	Edwin Williams	Whittle Corporation	11/11/2000	6.88	RITCHIE	230	296	
HAUGHT-615	Edwin G. Williams, single	710 Corporation	12/27/2004	70	RITCHIE	237	110	

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Environmental Protection

Exhibit - A

LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-616	C. F. Wilson and Bessie Irene Wilson, his wife	Glenn L. Haught & Sons	02/26/1962	20	RITCHIE	96	3	
HAUGHT-617	Grace Wilson and S. F. Wilson deceased	Phillip Wilson	11/04/1960	73	RITCHIE	94	251	
HAUGHT-618	Emily D. Wilson Et Al	Earl Hardman	11/10/1958	66	RITCHIE	89	113	
HAUGHT-619	I. R. Wilson and L. C. Wilson his wife	J. W. Marshall	01/31/1903	48	RITCHIE	18	234	
HAUGHT-620	Alvin Wince and Lovania Wince his wife	J. W. Marshall	01/10/1901	107	RITCHIE	18	226	
HAUGHT-621	E. C. Parks	Ira Haught and Azra Haught	02/23/1918	150	RITCHIE	39	536	
HAUGHT-622	P. C. Parks Et Al	Glenn L. Haught	11/20/1943	150	RITCHIE	74	547	
HAUGHT-7	Allen A. Ayers and Eva J. Ayers, his wife	Glenn L. Haught	03/08/1954	51	RITCHIE	83	311	
HAUGHT-70	Darrel V. Cunningham and Dora M. Cunningham	Warren R. Haught and Eldon J. Haught, DBA Glenn L. Haught & Sons	01/24/1975	128	RITCHIE	118	667	
HAUGHT-71	Denver L. Goff and Belva L. Goff, his wife	Warren R. & Eldon J. Haught, dba Glenn L. Haught & Sons	06/21/1976	155	RITCHIE	121	181	
HAUGHT-72	Denver L. Goff and Belva L. Goff, his wife	Warren R. Haught	06/21/1977	155	RITCHIE	124	524	
HAUGHT-73	John D. Law and Rita LawDale Law and Wilna Law	Warren R. Haught	03/27/1979	96.25	RITCHIE	127	85	
HAUGHT-74	James D. Law Et Al	H. M. Deem	09/17/1974	185	RITCHIE	118	529	
HAUGHT-76	Dale Wolfe and Ruby Wolfe, his wife	Warren R. Haught	01/27/1982	44	RITCHIE	141	105	
HAUGHT-77	Robert M. Sigler Et Al	Dale Wolfe	08/16/1978	44	RITCHIE	126	133	
HAUGHT-78	Dale Wolfe and Ruby Wolfe, his wife	Glenn L. Haught	01/26/1976	44	RITCHIE	120	52	
HAUGHT-79	Robert M. Sigler Et Al	Dale Wolfe	08/16/1978	44	RITCHIE	125	787	
HAUGHT-8	Allen A. Ayers and Eva J. Ayers, his wife	Glenn L. Haught	03/08/1954	51	RITCHIE	83	311	
HAUGHT-80	David A. DeMatteo and Tracy L. DeMatteo, his wife	Haught Energy Corporation	05/07/2013	61.23	RITCHIE	265	628	
HAUGHT-81	James H. Davidson	Geo. H. Ahrens	12/18/1892	135	RITCHIE	3	21	
HAUGHT-82	Hermolne G. Davis, widow	Ed Morris	09/03/1962	26	RITCHIE	97	521	
HAUGHT-83	Sue W. Davis Et Al	Warren R. Haught	03/20/1981	75	RITCHIE	136	352	
HAUGHT-84	Haught Family Trust, Ira M. Haught as Trustee	Whittle Corporation	08/08/2012	44.25	RITCHIE	257	869	
HAUGHT-85	William C. Smith	Whittle Corporation	10/02/2012	44.25	RITCHIE	259	254	
HAUGHT-86	Otis P. Swab Et Al	Walter C. Crane, C. G. Lowther and Hayward Summers, dba Vesta Fuel Company	07/29/1960	326.25	RITCHIE	92	147	
HAUGHT-87	Otis P. Swab Et Al	Walter C. Crane, C. G. Lowther and Hayward Summers, dba Vesta Fuel Company	12/21/1959	326.25	RITCHIE	91	73	
HAUGHT-88	Otis P. Swab Et Al	Walter C. Crane, C. G. Lowther and Hayward Summers, dba Vesta Fuel Company	12/21/1959	326.25	RITCHIE	91	75	
HAUGHT-89	Alberta Radcliffe	Veard Summers	11/12/1976	100	RITCHIE	122	264	
HAUGHT-90	Louis Sikora and Joseph Sikora	Veard Summers	11/12/1976	100	RITCHIE	122	266	
HAUGHT-91	J. F. Deem and Mary C. Deem, his wife	Ira Haught	12/13/1918	87	RITCHIE	42	3	
HAUGHT-92	Edwin Lee Deem	Whittle Corporation	07/25/2011	92.13	RITCHIE	255	624	
HAUGHT-160	J. F. Deem Et Al	Warren R. Haught		147	RITCHIE	124	804	
HAUGHT-161	Gus Bee and Abbie Bee, his wife	Warren R. Haught		147	RITCHIE	124	806	
HAUGHT-377	Helen M. Wilson Et Al	J. F. Deem	05/22/1936	340	RITCHIE	65	45	
HAUGHT-470	Richard Fox	Whittle Corporation	08/31/2007	97.267	RITCHIE	245	114	

HG ENERGY LLC
5260 DUPONT RD
PARKERSBURG, WV 26101-7719

Exhibit - A

LeaseNumber	Lessor	Lessee	Effective Date	Lease Gross Acres	County	Book Number	Page Number	Instrument Number
HAUGHT-471	Richard Fox	Whittle Corporation	12/23/2013	97.267	RITCHIE	271	376	
HAUGHT-16	Bradley F. Davis and his wife Doris L. Davis	Warren R. Haught	07/11/1978	70	RITCHIE	125	631	
HAUGHT-17	Bradley F. Davis Et Al	710 corporation	01/15/1991	70	RITCHIE	209	375	
HAUGHT-18	Bradley Davis Et Al	HAH Petroleum	03/03/1993	70	RITCHIE	215	258	

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2019
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HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

01/11/2019

4708510375

August 21, 2018

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

RE: Drilling Under Roads – Goodnight 1402 N-3H
Murphy District, Ritchie County
West Virginia

Dear Ms. Adkins:

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

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

Very truly yours,

Diane White

Diane C. White

Enclosures

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Environmental Protection

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

Date of Notice Certification: 09/04/2018

API No. 47- _____
Operator's Well No. Goodnight 1402 N-3H
Well Pad Name: Goodnight 1402

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>492550.3</u>
County: <u>Ritchie</u>		Northing: <u>4324574.1</u>
District: <u>Murphy</u>	Public Road Access: <u>SR 47</u>	
Quadrangle: <u>Smithville WV 7.5'</u>	Generally used farm name: <u>Kenneth Paul Goodnight</u>	
Watershed: <u>South Fork Hughes River</u>		

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><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>
<p>RECEIVED Office of Oil and Gas SEP 12 2018 WV Department of Environmental Protection</p>	

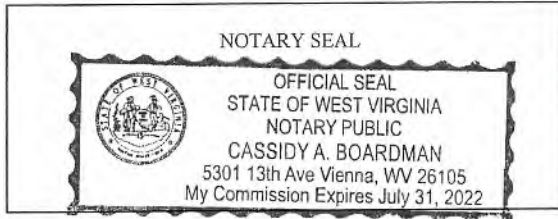
Required Attachments:

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

Certification of Notice is hereby given:

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

Well Operator:	<u>HG Energy II Appalachia, LLC</u>	Address:	<u>5260 Dupont Road</u>
By:	<u>Diane White <i>Diane White</i></u>		<u>Parkersburg, WV 26101</u>
Its:	<u>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 4th day of September, 2018.

Cassidy A. Boardman Notary Public

My Commission Expires 7/31/2022

Oil and Gas Privacy Notice:

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

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WV Department of
Environmental Protection

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API NO. 47- - 01/11/2019
OPERATOR WELL NO. Goodnight 1402 N-3H
Well Pad Name: Goodnight 1402

WW-6A
(9-13)

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: 8/24/18 Date Permit Application Filed: 8/31/18

Notice of:

- [X] 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 [X] 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.

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

[] SURFACE OWNER(s)
Name: Kenneth Paul Goodnight
Address: 17155 Staunton Tpke
Smithville, WV 26178

Name: _____
Address: _____

[] SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: See Above
Address: _____

Name: _____
Address: _____

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

[] COAL OWNER OR LESSEE
Name: NA
Address: _____

[] COAL OPERATOR
Name: NA
Address: _____

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

[] OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: NA
Address: _____

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*Please attach additional forms if necessary

WW-6A
(8-13)

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WV Department of
Environmental Protection

4708510375
API NO: 47-_____-_____
OPERATOR WELL NO. Goodnight 1402 N-3H
Well Pad Name: Goodnight 1402
01/11/2019

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

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

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

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

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

Permit Denial or Condition

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

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

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

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

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API NO. 47- - 01/11/2019

OPERATOR WELL NO. Goodnight 1402 N-3H

Well Pad Name: Goodnight 1402

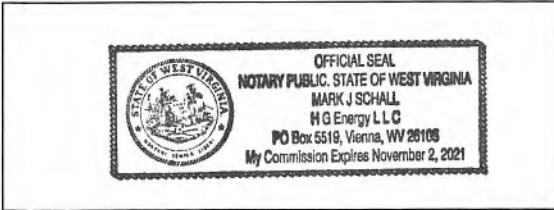
Notice is hereby given by:

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

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

Oil and Gas Privacy Notice:

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



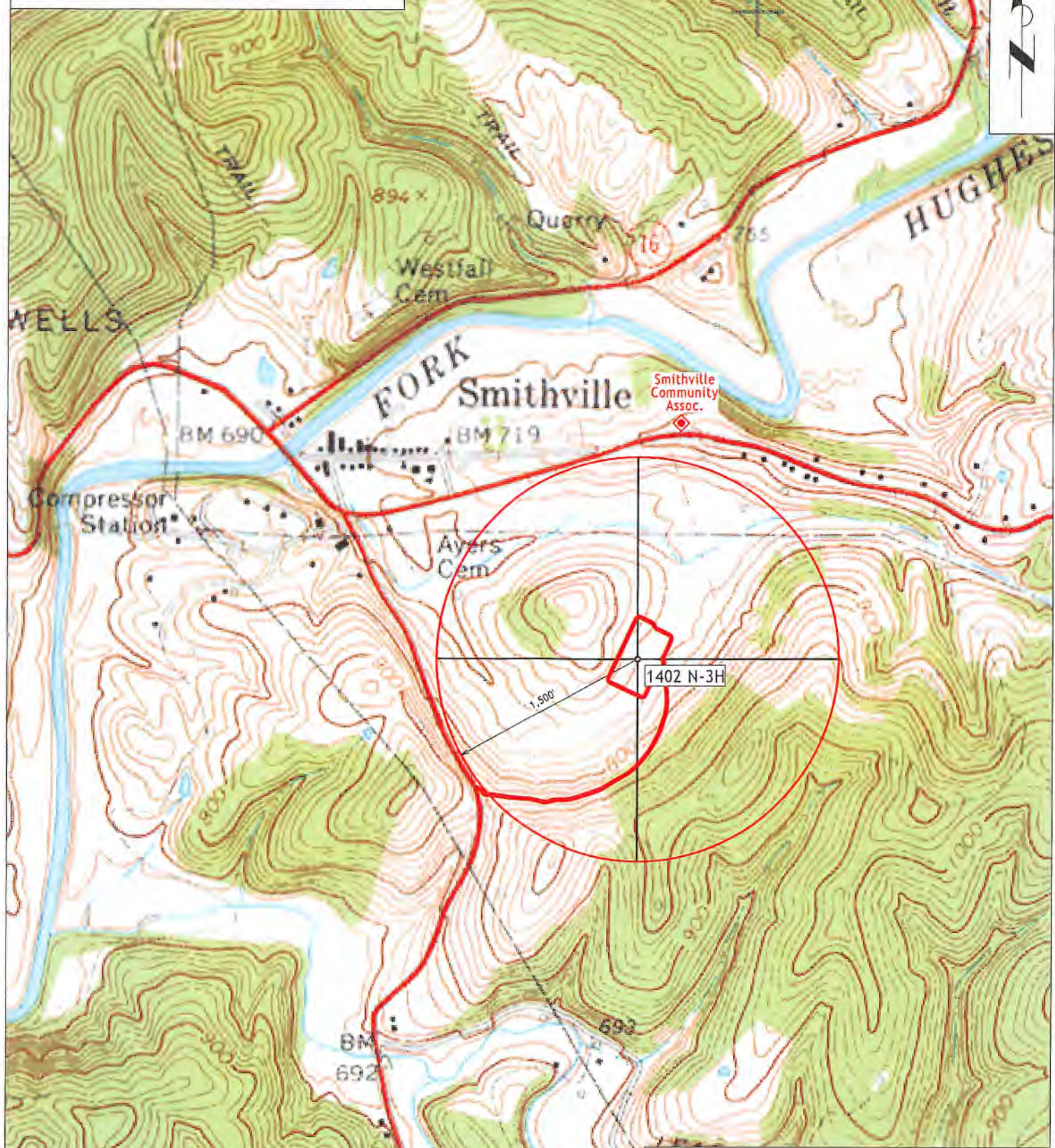
Subscribed and sworn before me this 24 day of August, 2018.

[Signature] Notary Public

My Commission Expires 11/2/2021

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SUBJECT WELL
Goodnight 1402 N-3H



◆ WSW Source to Be Tested.
(No Known Water
Supply Sources are
Located Within 1,500')

Section of
Smithville 7.5' Quadrangle
SCALE 1"=1000'

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

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

Date of Notice: 6/25/18 **Date of Planned Entry:** 7/02/18

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

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

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

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Kenneth Paul Goodnight

Address: 17155 Staunton Turnpike
Smithville, WV 26178

Name: _____

Address: _____

Name: _____

Address: _____

COAL OWNER OR LESSEE

Name: NA

Address: _____

MINERAL OWNER(s)

Name: ** See Attached List **

Address: _____

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*please attach additional forms if necessary

Notice is hereby given:

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.070234 & 81.086118</u>
County: <u>Ritchie</u>	Public Road Access: <u>SR 47</u>
District: <u>Murphy</u>	Watershed: <u>South Fork of the Hughes River</u>
Quadrangle: <u>Smithville 7.5'</u>	Generally used farm name: <u>Kenneth Paul Goodnight</u>

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

Notice is hereby given by:

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

Oil and Gas Privacy Notice:

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

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WV Department of
Environmental ProtectionMineral OwnersAshley Price Rose & Kelley M. Rose
1265 Pine Island Rd.
Merritt Island, FL 32953Bettie Louise Alberts Parks
224 Carrington Dr.
Pawleys Island, SC 29585Betty Lucille Delaney
3509 Old Pittsburg Rd
New Castle, PA 16105Beverly Ann Wilson Moorefield
3327 17th Street NW
Washington, DC 20010Black Gold Group LTD
PO Box 85
Strasburg, OH 44680Camilla Gatrell
2367 Murraysville Rd
Ravenswood, WV 26164Carlene Bea Murphy
11012 Corundite Road NW
Massillon, OH 44646Carol Ann & John Joseph Annie
1322 Village Drive
South Charleston, WV 25309Carolyn Diana Welch
333 West High Street
Harrisville, WV 26362Carolyn R. Parks Fulper
HC 68 BOX 24
Smithville, WV 26178Carrie Parks Scarbro
109 Stone Street
Mt Hope, WV 25880Cathie I & Michael W Krosse
327 Taggart Ave. NE
Massillon, OH 44646Cecil Edward Perry, Jr.
1704 Westerfield Road
Virginia Beach, VA 23455Charles Bryan & Barbara J Parks
5766 SW 87th Ave
Cooper City, FL 33328Cherie A. Meyer
539 Brighton Ave
Portland, ME 04102Cherly L. Delaney
44 Valley View Drive
New Wilmington, PA 16142Chester Vincent Smith
858 Basswood Ave.
Canal Fulton, OH 44614Christina L. Baker
1990 Hemlock St.
Columbus, OH 43217Christopher Pierce Harper
212 Oakwood Dr.
Matthews, NC 28104Clifford Frank Scott, Jr
& Sharon Scott
1678 Leisure World
Meza, AZ 85206Colleen Salisbury
317 Whiskey Creek Ct
Ocoee, FL 34761Connie Vanessa Fulgham
3928 W 158th St.
Cleveland, OH 44111Craig Arthur and Beth A Lefevre
611 Stanley Ave.
Clarksburg, WV 26301D. Joan Jones
15 Devonshire Court
Harrisville, WV 26362Daniel Lee & Patty N. Hinson
46 Oak St.
Folkston, GA 31537Dawn and Robert W. Fetzer
28135 West Dr.
Canyon Lake, CA 92587Deborah Ann Schafer
& James Luther Schafer
2718 CR 150
Millersburg, OH 44654

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Mineral Owners

Debra M Bennington ✓
4035 Snaffle Bit Rd
Lebanon, IN 46052

Debra R Thiel and Nelson A Thiel ✓
5548 Rice Road
Boston, NY 14025

Denver Lee and Mary K. Rose ✓
6304 Firetower Rd.
Kiln, MS 39556

Donald E Parks, Jr ✓
107 N Smith St
Fayetteville, WV 25840

Donald Kirby Stout ✓
110 Countryside Dr
Senoia, GA 30276

Donald Ray Hedge, Jr ✓
and Jill M Hedge
419 Smith St.
Fredericksburg, VA 22405

Donna and George Sturnick ✓
1055 Carbon Road
Greensburg, PA 15601

Donna Hedge Williamson ✓
485 Inn Rd
Buchanan, VA 24066

Reps C Williamson ✓
3315 Trenholm Rd
Powhatan, VA 26139

Donna J. Parks Stanley ✓
122 3rd Street
New London, OH 44805

Donnetta M & Gregory H Hayduke ✓
3403 Verplank Road
Clay, NY 13041

Douglas Mason Morrison ✓
and Susan Morrison
408 Inverness Ln
Salsburg, NC 28146

Elizabeth Lynn & Phillip I Gallogly ✓
521 Belvedere Drive
Mount Vernon, OH 43050

Eric and Sharon Kay Mauser ✓
5706 Scenic Avenue
Mexico, NY 13114

Eric L Cottrill ✓
6800 Granite Ave, APT 723
Tulso, OK 74136

Ernest Neal Smith & Lisa Lynn Smith ✓
8684 Sunset Valley Ave. NW
Canal Fulton, OH 44614

Eva A. Snyder ✓
405 Goffs Rd
Harrisville, WV 26362

Eva M. Humphrey ✓
2600 E Allred Avenue Lot A7
Meza, AZ 85206

Evelyn Virginia Vance ✓
233 Furnace Road
Wardensville, WV 26851

Fred W & Rebecca C Hedge ✓
8110 Old Plank Rd
Fredericksburg, VA 22407

Freda Mae Parks Miller ✓
and William D Miller
4863 Orange Tree Pl
Venice, FL 34293

G Stanley Cox & Bette L Cox ✓
Estate Planning Trust
6210 Langton Circle
Westerville, OH 43082

Garrold J Lamp & Jackie Lamp ✓
6888 Blue Cedar Road
Leesburg, FL 34748

Garry Gene King ✓
& Bettina Frances King
1918 Harding Path.
The Villages, FL 32162

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WV Department of
Environmental ProtectionPage 1 Continued**Mineral Owners**George H. Williams, III ✓
PO Box 222461
Anchorage, AK 99522-2461George Warren Long ✓
and Pedro Luis Robles
1161 N Hiatus Road
Pembroke Pines, FL 33026Gloria Jean Fisher ✓
3080 School Street
Clarksburg, WV 26301Glyndon H Ellis Trust ✓
James W Ellis & Karla Hughes
Successors Co-Trustees
124 Merrimack Place
Chocowinity, NC 27817Glyndon H Ellis Trust ✓
James W Ellis & Karla Hughes
Successors Co-Trustees
4601 Kenbridge Dr
Greensboro, NC 27410Gregery Allen Raber ✓
208 Brooklyn Ave.
Weston, WV 26452Harold McKinley Hedge ✓
801 Boone Farm Rd
Asheboro, NC 27205Helen Marsh Testamentary Trust ✓
WS Marsh, Janice Standish, &
WC Marsh, Co Trustees
26 Gate 8
Carolina Shores, NC 28467Helen May McHenry ✓
65 Crab Run
Smithville, WV 26178-7044Hester Geraldine Tichy ✓
607 55th Street
Vienna, WV 26105Hilda M. Deem ✓
5607 4th Ave
Vienna, WV 26105Ira M. Haught, Robin J Cook,
and Kelsey Haught ✓
210 E Main St
Harrisville, WV 26362Jack Andrew Scott ✓
1515 Hilbish Avenue
Akron, OH 44312James H King and Robyn A King ✓
973 Ellsworth Drive
Grayslake, IL 60030James Keith Gabbert ✓
P O Box 297
Prosperity, WV 25909James Mark Hedge and Ivy S. Hedge ✓
316 Woodford St.
Fredericksburg, VA 22401James McCoy and Roberta McCoy ✓
PO Box 5
Smithville, WV 26178-0005Janice H & Stewart C Buckler ✓
1651 Dares Beach Rd
Prince Frederick, MD 20678Jason Scott Marshall ✓
337 Bethel Grange Road
Winchester, VA 22603Jeffrey A Schad ✓
1320 Lewiston Drive
Westfield, IN 46074Jennifer Black Linville ✓
and John W Linville
321 Mexico Rd
Edenton, NC 27932

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WV Department of
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Jill Renee Fisher and Daniel L. Fisher ✓
1272 Morten St
Cincinnati, OH 45208

John G Rogers, Jr ✓
& Omaha Geraldine Rogers
341 Parsons Ridge Road
Proctor, WV 26055

John Kevin Stout ✓
RT 1 Box 147
Cairo, WV 26337

John Thomas Hedge ✓
5595 E Irlo Bronson
Memorial Hwy. Lot 7
Saint Cloud, FL 34771

Joseph D. Gartrell ✓
P.O. Box 31
New Philadelphia, OH 44663

Joy Sharon Spino ✓
28 Woodsdale Cemetery Road
Grafton, WV 26354

Joy Sharon Spino ✓
901 W Washington St.
Grafton, WV 26354

Joyce E & Paul J Zentner ✓
6906 Greenbrook Cir
Citrus Heights, CA 95621

Joyce Elaine Strouse ✓
& Michael Lee Strouse
16080 McKenzie Road
Mount Vernon, OH 43050

Judith A. Bonnett ✓
1949 Loadstar Ave.
The Villages, FL 32162-7055

Judith Kaye Lamp ✓
9 Northern Drive
Millersburg, OH 44654

Karen Patricia Winant ✓
& Brian E Daly
341 Irish Rose Rd.
Saint Augustine, FL 32092

Karl John Spino ✓
1661 Victory Ave.
Grafton, WV 26354

Karleena Marie Lamp ✓
2001 Judson Road
Kokomo, IN 46901

Kathleen Horne ✓
PO Box 962
Oakland, FL 34760

Keegan Wayne Lamp ✓
7405 Creyts Road
Dimondale, MI 48821

Kelsey Jean Lamp ✓
1121 Gould Road
Lansing, MI 48917

Kenneth J. Delaney ✓
109 W Sheridan Avenue
New Castle, PA 16105

Kenneth Paul Goodnight ✓
P.O. Box 7
Smithville, WV 26178-0007

Kerri E. Rose ✓
122 Mitchner Ave.
Satsuma, FL 32189

Kristopher James Lamp ✓
2001 Judson Road
Kokomo, IN 46901

Larry Oran and Brenda Sue Lantz ✓
9932 George Washington Hwy
Bridgeport, WV 26330

Lawrence and Joan Dotson ✓
730 10th Street Dr. NW
Conover, NC 28613

Lawrence Ray & Karen Lamp ✓
5640 Township Road 353
Millersburg, OH 44654

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Lawrence S & Joanne Marie Parks ✓
1252 Skylark Ave.
Marco Island, FL 34145

Leona Ernest Haught, Jr. ✓
16837 Staunton Tpk
Smithville, WV 26178

Lila Claire Riddle ✓
3891 Alfalfa Lane
Fayetteville, PA 17222

Linda K. Linger ✓
979 Broadway
West Long Branch, NJ 07764

Lois Ann Delaney ✓
109 W Sheridan Avenue
New Castle, PA 16105

Lois Louise Simonton ✓
5604 Wadesville Rd
Belleville, WV 26133

Loretta F. Parks Stanley ✓
1361 County Rd 16
New London, OH 44851

Loretta M. Parks Stiffler ✓
fka Loretta Ritchey
2155 Nottingham Drive
Winter Park, FL 32792

Lori Rose Savoie ✓
& Jacques Savoie, her husband
191 Pelican Rd.
Venice, FL 34293

Lorna Kay Parks ✓
125 Wilderness Lane
Williamsburg, VA 23188

Lyman Gregory Rose ✓
& Elizabeth L Rose
6322 Sanctuary Woods Ct.
Burke, VA 22015

Margaret Ann Mulligan ✓
& Paul L Mulligan, Jr.
415 Glen Avenue
Clarksburg, WV 26301

Mark Lane Rogers ✓
1907 Fairview Ridge Road
New Matamoras, OH 45767

Mary Jo Finch ✓
826 Country Club Drive
Sistersville, WV 26175

Mary Kathryn Atkinson ✓
5 River Crest
Vienna, WV 26105

Mary Lee Lutton ✓
2010 Glendale Avenue
New Castle, PA 16105

Mary Parks Ryan ✓
42 Hope Hill
Mannington, WV 26582

Matthew Thomas Smith ✓
and Beth Anne Smith
4649 13th St. NW
Canton, OH 44708

Maureen Parks Bruenski ✓
624 West Chestnut Street
Junction City, KS 66441

Melody Ann Dunn ✓
701 Heritage Drive
Trenton, OH 45067

Michael David Stout ✓
2270 Canton Hwy
Cumming, GA 30040

Myrald Cantley ✓
11 Beech Drive
Jim Thorpe, PA 18229-9553

Myrtle Lamp ✓
2001 Judson Road
Kokomo, IN 46901

Nancy J and Billy G Pilkington ✓
202 York Dr.
Portsmouth, VA 23702

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West Virginia Department of
Environmental ProtectionMineral OwnersNicole Parks Slaughter ✓
107 North Smith Street
Fayetteville, WV 25840Nora E. Akers ✓
4465 19th Ave.
Parkersburg, WV 26101Orma M. Wilson Johnson ✓
3315 Higley Rd.
Rocky River, OH 44116Patricia Anne Mauser ✓
686 Idlewood Blvd.
Baldwinsville, NY 13027Paul Kester Scott, III ✓
1430 S Juniper Street Apt A
Escondido, CA 92025Penelope J & James C. Slifka ✓
559 S Colfax Ave
Elmhurst, IL 60126Phyllis Sweeting ✓
1503 United Street
Key West, FL 33040Randall Jeffery Stout ✓
RT 1 Box 10
Petroleum, WV 26161Randolph Harvey Lamp ✓
1256 Lennox Avenue NE
Massillon, OH 44646Rebecca Dee VanGordon ✓
3505 Berkley Ct
Liverpool, NY 13090Rene Ann Costello ✓
2028 E Lincoln Ave
Decatur, IL 62521Rene Ann Costello ✓
109 Oak Crest Dr.
Partlow, VA 22534Rhonda Parks ✓
109 Stone Street
Mount Hope, WV 25880Richard A & Patricia Lynn Conley ✓
1525 Trail Ct.
Grove City, OH 43123Richard Charles Rose, Jr. ✓
& Cindy Ann Rose ✓
11624 Falling Leaf Trl.
Jacksonville, FL 32258Richard L Repko ✓
1055 Carbon Road
Greensburg, PA 15601Robert Craig Hobbs ✓
632 Carriage Lake Dr.
Lexington, SC 29072Robert H. Parks ✓
791 Collins Rd
Little Hocking, OH 45742Robert Lynn Hedge ✓
8576 Executive Dr
Norfolk, VA 23503Robert Marcus Hinson ✓
& Mary Kaye Hinson ✓
16 Hickory Ct
Williamsburg, VA 23188Robert R. Delaney ✓
616 Sand Hill Road
Mount Pleasant, PA 15666Ronald Parks ✓
6101 Valley Park Drive
Huntsville, AL 35810Ronald R. Nutt ✓
723 Wigner Ave
Harrisville, WV 26362Rosa Parks ✓
52723 Trinter Rd
Vermillion, OH 44089Sandra S McCleaster ✓
1935 Stoner Avenue NE
Massillon, OH 44646Sandra Sue & Robert John Magdars ✓
1690 S 100 E
Orem, UT 84058Sara L. Berry ✓
497 Pitchercane Rd.
Hot Springs, AK 71901

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Mineral Owners

Scott A. Morriston & Kristy Morriston
1701 19th Ave. ✓
Parkersburg, WV 26101

Scott Stephen & Donna M Hedge
6466 Old Myrtle Rd. ✓
Suffolk, VA 23434

Sharon E and David Yedinak
119 Willow Drive ✓
Streator, IL 61364

Sondra Maylene Lamp
2001 Judson Road ✓
Kokomo, IN 46901

Sosociety Lee
42428 Chisolm Trl. ✓
Murrieta, CA 92562

Stefanie Ann Stout Minor
372 Fowler Rd ✓
Harrisville, WV 26362

Stephen Glen Doak
412 First Street ✓
Pennsboro, WV 26415

Stephen L & Pamela Sue Mauser
8502 Gaskin Road ✓
Baldwinsville, NY 13027

Steven B. Rhoades
P O Box 310 ✓
Grants, NM 87020

Steven Blaine Lamp
9486 Rohrland Street NW ✓
Massillon, OH 44646

Steven Douglas Showers
163 Hood Pole Run Rd ✓
Mount Clare, WV 25309

Susan & Ronald W Reynolds
1683 Hawkey Hill Road ✓
Proctor, WV 26055

Terri J. James
405 Sheffield Avenue, NE ✓
Massillon, OH 44646

Theresa Gail Lamp
2001 Judson Road ✓
Kokomo, IN 46901

Thermal Lee Bickerstaff ✓
113 Cumberland St, Apt 3
Caldwell, OH 43724

Thomas E Armstrong
712 Barnhart Street ✓
Streator, IL 61364

Thomas Eugene Hinson, Sr.
& Janis Lyn Hinson ✓
8420 Old Ocean View Rd.
Norfolk, VA 23518

Timothy Amos Clayton
7867 Hazelgreen Rd.
Smithville, WV 26178-7387

Toni M. Layfield
356 Pine Twist Rd ✓
Elizabeth, WV 26143

Vieva May Harlow
337 Chestnut Ridge Rd ✓
Winston Salem, NC 27104

Vieva May Harlow ✓
1244 Arbor Rd
Winston Salem, NC 27104

Virginia R Parks Boswell
847 Telegraph Rd ✓
Stafford, VA 22554

Walter Augustine Hedge
1481 Taft Rd ✓
Chesapeake, VA 23322

William B. Elliott ✓
70 Betsy Lane
Belpre, OH 45714-9336

William Richard Stout
1808 Spring St ✓
Parkersburg, WV 26101

William Scott Smith
& Shannon Lea Smith ✓
586 Moon Bay Dr. Unit 4
Kuttawa, KY 42055

William T & Sara E Lamp ✓
1307 S Parrot Ave, Lot 95
Okeechobee, FL 34974

01/11/2019

WW-6A3

(1-12)

Page 1 Continued

Mineral Owners

Wilmer Johnson and Beverly Johnson
571 Bronx Corner Rd. ✓
Ray, OH 45672

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Office of Oil and Gas

SEP 12 2018

WV Department of
Environmental Protection

Goodnight 1402 N-3H

4708310375

WW-6A4
(1/12)

SEP 12 2018

WV Department of
Environmental Protection

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

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

Notice Time Requirement: Notice shall be provided at least **TEN (10)** days prior to filing a permit application.
Date of Notice: 06/27/2018 **Date Permit Application Filed:** 07/11/2018

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

HAND DELIVERY CERTIFIED MAIL RETURN RECEIPT REQUESTED

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

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

Name: Kenneth Paul Goodnight
Address: 17155 Staunton Tpke
Smithville, WV 26178

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:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>492550.3</u>
County:	<u>Ritchie</u>		Northing:	<u>4324574.1</u>
District:	<u>Murphy</u>	Public Road Access:		<u>SR 47</u>
Quadrangle:	<u>Smithville 7.5'</u>	Generally used farm name:		<u>Kenneth Paul Goodnight</u>
Watershed:	<u>South Fork of the Hughes River</u>			

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

Oil and Gas Privacy Notice:

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

WW-6A5
(1/12)

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

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

Date of Notice: 06/28/2018 **Date Permit Application Filed:** 07/11/2018

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SEP 12 2018

WV Department of
Environmental Protection

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: <u>Kenneth Paul Goodnight</u>	Name: _____
Address: <u>17155 Staunton Tpke</u>	Address: _____
<u>Smithville, WV 26178</u>	_____

Notice is hereby given:

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

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>492550.3</u>
County: <u>Ritchie</u>		Northing: <u>4324574.1</u>
District: <u>Murphy</u>	Public Road Access: <u>SR 47</u>	
Quadrangle: <u>Smithville 7.5'</u>	Generally used farm name: <u>Kenneth Paul Goodnight</u>	
Watershed: <u>South Fork of the Hughes River</u>		

This Notice Shall Include:

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

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

Oil and Gas Privacy Notice:

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

01/11/2019



4708510375

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

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

September 10, 2018

Jill M. Newman
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 Goodnight 1402 Well Pad, Harrison County
N-3H Well Site

Dear Mr. Martin,

This well site will be accessed from Permit #03-2018-0485 issued to HG Energy II Appalachia for access to the State Road for a well site located off of Ritchie County 16 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

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

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

Cc: Diane C. White
HG Energy II, LLC
CH, OM, D-3
File

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Office of Oil and Gas

SEP 12 2018

WV Department of
Environmental Protection

List of Frac Additives by Chemical Name and CAS #
Goodnight 1402 Well Pad (N-1H, N-2H, N-3H, N-4H)

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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Office of Oil and Gas

SEP 12 2018

WV Department of
Environmental Protection

CONSTRUCTION IMPROVEMENT PLANS WITH EROSION AND SEDIMENT CONTROLS HG 1402 PAD & TAP SITE

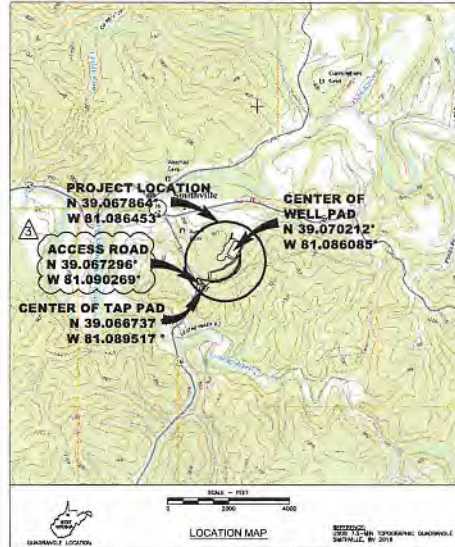
**APPROVED
WVDEP OOG**

11 / 29 / 2018

MURPHY DISTRICT
RITCHIE COUNTY
WEST VIRGINIA

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, Topsoiling, Trees and Shrubs - After construction is completed, install stabilization BMPs including: permanent seeding, mulching and nrcap, and complete implementation of stormwater BMPs in this last construction phase. Stabilize all open areas, including borrow and spoil areas, and remove all temporary BMPs and stabilize any disturbances associated with the removal of the BMP.



PREPARED FOR
HG ENERGY II APPALACHIA, LLC

5260 DUPONT ROAD
PARKERSBURG, WEST VIRGINIA 26101
(304) 420-1100

PREPARED BY
PENN ENVIRONMENTAL & REMEDIATION, INC.

111 RYAN COURT
PITTSBURGH, PA 15205
(412) 722-1222

Estimated Gross Material Balance (CY)			
Final Unleakement - Gravel Option			
1402 Pad	21,328	22,168	-840
1402 Access Road	4,013	4,419	-406
Tap Site Pad & Road	2,478	2,673	-195
Total	27,819	29,260	-1,441
Site Adjustment for Aggregate Import			
Fill		2,505	
Total Site Balance		2,064	
Stripped Topsoil (Limit of Disturbance)			
Est. Swell Factor	(20%)	2,501	
Est. Topsoil Stockpile Volume (Loose CY)		15,007	
Minimum Total Stockpile Capacity Required (CY)		17,512	

- Notes:
- Material balance for wet, gross earthwork quantities only.
 - Topsoil est. volume based on 6 inches average depth.
 - Material balance and aggregate quantities based on estimates and may not be representative of actual quantities.
 - Estimates do not reflect contractor pay volumes.

Estimated Gravel Quantities (Placed CY)			
1402 Pad	21,328	22,168	-840
1402 Access Road	4,013	4,419	-406
Tap Site Pad & Road	2,478	2,673	-195
Total	27,819	29,260	-1,441
Site Adjustment for Aggregate Import			
Fill		2,505	
Total Site Balance		2,064	
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Est. Swell Factor	(20%)	2,501	
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SHT. NO.	SHEET TITLE
1	TITLE SHEET
2A-2C	SITE LAYOUT PLANS
3	WELL PAD, STOCKPILE, & TAP PAD SECTIONS
4A-4B	ACCESS ROAD SECTIONS
5A-5G	GENERAL NOTES & DETAILS
6A-6C	RESTORATION PLAN
7	PROPERTY MAP

RECORD OWNER	RECORD LOT #	RECORD AREA OF LOT	AREA WITHIN LOD
GOODNIGHT KENNETH PAUL	43-07-0055-0000	225.7 AC	15.549 AC
TOTAL LIMIT OF DISTURBANCE			15.549 AC

LOT #	LATITUDE	LONGITUDE
1402A ACCESS ROAD ENTRANCE	N 39.067296	W 81.090269

WELL #	LAT	LONG.
N-2H	N 39.070182	W 81.086141
N-3H	N 39.070234	W 81.085118

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REVISION	DATE	DESCRIPTION
1	8/16/18	MODIFICATIONS TO WELL PAD & ACCESS ROAD SURROUNDING DETAILS
2	8/23/18	REVISED STOCKPILE LOCATION & LIMITS OF DISTURBANCE
3	9/19/18	REVISED SITE ENTRANCE
4	10/30/18	REVISING PER DEP COMMENTS



TITLE SHEET
HG 1402 PAD & TAP SITE
MURPHY DISTRICT
RITCHIE COUNTY, WEST VIRGINIA

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

APPROVED: MEP 08/15/2018
CHECKED: MEP 08/29/2018
DRAWN: SA 08/29/2018
PROJECT: No. 4260-PAD07585

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

WEST VIRGINIA

CALL BEFORE
YOU DIG!

Dial 811 or
800.245.4848

1. SERVICES UTILIZED ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING, AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE.

APPROVED WVDEP OOG
11/29/2018

COONIGHT KENNETH PAUL
PH# 3-07-0026-0035-0004
265.7 AC

Estimated Gross Material Storage (CY)
Perf. Deodorant (Bovine Origin)
City 1.0 1.0 0.00000
1402 Pad 21,530 22,188 -658
1402 Access Road 4,100 4,418 -318
Top Soil Pad & Road 3,426 3,579 -153
Total 29,056 28,975 81

Soil Acquisition for Access Road
Perf. 2,856
Total Soil Balance 2,856 Cu
Required (to meet 1% of disturbance) 12,540
Soil Stock Pile 2,204
Soil Required (to meet 1% of disturbance) 14,336
Minimum Total Erosion Control Capacity Required (CY) 17,120

Notes:
1. Material balance for net gross storage quantities only.
2. Typical net volume based on standard average depth.
3. Material balance and appropriate quantities based on conditions and may not be representative of actual conditions.
4. Measurements not net for concrete polyconcrete.

Estimated Gross Quantities (Rounded CY)
Perf. Deodorant (Bovine Origin) 1.0 1.0 0.00000
1402 Pad 21,530 22,188 -658
1402 Access Road 4,100 4,418 -318
Top Soil Pad & Road 3,426 3,579 -153
Total 29,056 28,975 81

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1402 Pad 21,530 22,188 -658
1402 Access Road 4,100 4,418 -318
Top Soil Pad & Road 3,426 3,579 -153
Total 29,056 28,975 81



- KEEP IMPROVED GENERAL NOTES**
- REVISIONS SHALL BE MADE WITH THE CONTRACTOR WITHIN THE SPECIFICATIONS.
 - CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND CALCULATIONS. ALL MEASUREMENTS SHALL BE TAKEN AT THE CORNER OF EACH LOT. ALL MEASUREMENTS SHALL BE TAKEN AT THE CORNER OF EACH LOT. ALL MEASUREMENTS SHALL BE TAKEN AT THE CORNER OF EACH LOT.
 - THE SLOPE SHALL BE MAINTAINED IN ACCORDANCE WITH THE SLOPE SPECIFICATIONS. ALL SLOPES SHALL BE MAINTAINED IN ACCORDANCE WITH THE SLOPE SPECIFICATIONS. ALL SLOPES SHALL BE MAINTAINED IN ACCORDANCE WITH THE SLOPE SPECIFICATIONS.
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REVISIONS:

- REVISIONS DISTANCES FROM BEST AVAILABLE AND NATIONAL ELEVATION DATUM.
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- REVISIONS DISTANCES FROM BEST AVAILABLE AND NATIONAL ELEVATION DATUM.

NO.	DATE	DESCRIPTION
1	8/17/18	ADDITIONS TO WELL PAD & ACCESS ROAD/PAV DRIVEWAY
2	8/23/18	REMOVE UTILITY LOCATIONS & LIMITS OF DISTURBANCE
3	9/7/18	REVISED SITE ELEVATIONS
4	10/25/18	REVISIONS PER OOG COMMENTS

SCALE = FEET
0 50 100 150

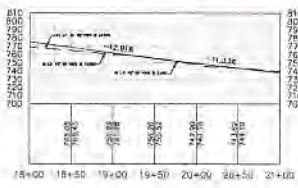
SITE DEVELOPMENT PLAN WITH EROSION AND SEDIMENTATION CONTROLS
HG 1402 PAD & TAP SITE
MURPHY DISTRICT
RITCHIE COUNTY, WEST VIRGINIA
PREPARED FOR
HG ENERGY II APPALACHIA, LLC
PARKERSBURG, WEST VIRGINIA

APPROVED: MFP 08/21/2018
CHECKED: MFP 08/28/2018
DESIGNED: MFP 08/28/2018
PROJECT NO.: 4000 (HAYSTACK)
DRAWING NUMBER: PAGO7585-001
SHEET: 2A

WEST VIRGINIA STATE OF ENVIRONMENTAL & NATURAL RESOURCES
20488
STATE OF WEST VIRGINIA
111 RYAN COURT, PITTSBURGH, PA 15260
412-732-1223

WEST VIRGINIA STATE OF ENVIRONMENTAL & NATURAL RESOURCES
CALL BEFORE YOU DIGI
Dial 811 or 800.245.4848
West Virginia of West Virginia

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



S:\PROJECT_18\1402\1402PAD\1402PAD.dwg (D:\1402PAD\1402PAD.dwg) DATE: 11/29/2018 10:58:11 AM

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CONSTRUCTION IMPROVEMENT PLANS WITH
EROSION AND SEDIMENT CONTROLS
HG 1402 PAD & TAP SITE

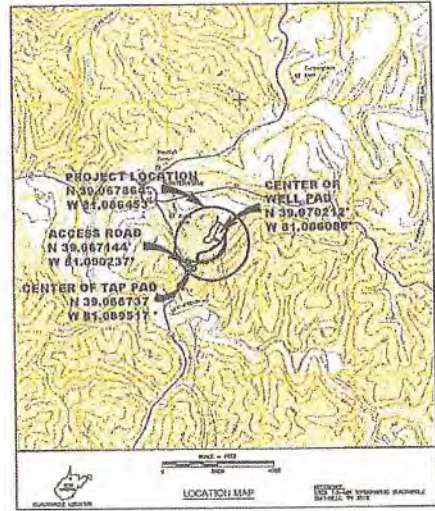
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Office of Oil and Gas

SEP 12 2018

WV Department of
Environmental Protection

MURPHY DISTRICT
RITCHIE COUNTY
WEST VIRGINIA

Category	Code	FE	SB/SH
Final Development - Great Divide			
1402 Pad	21.528	23.16A	489
1402 Access Road	4.001	4.62A	100
1402 Tap Site	2.470	2.970	406
Total	28.000	28.710	490
Off-Admission for Approval Report			
PAE			2.950
Final Installation			12.100
Construction Erosion (No. of Disturbances)			10.000
Est. Soil Erosion		0.000	2.000
Est. Topsoil Generation (Vol. of Spoil)			18.000
Structure Total Storage Capacity (Prod. Cr.)			17.500
Notes:			
1. All disturbance areas for soil erosion control shall comply with 20.20(a).			
2. Topsoil shall be stored and protected in accordance with 20.20(b).			
3. Storage of topsoil shall be approved as a condition of approval and shall be protected in accordance with 20.20(c).			
4. Limestone shall be applied to all disturbed areas.			
Designated Great Divide (Prod. Cr.)			
20.20(a) - 20.20(d)	20.20(a)	20.20(b)	10.000
20.20(e) - 20.20(f)	20.20(e)	20.20(f)	1.000
20.20(g) - 20.20(h)	20.20(g)	20.20(h)	1.000
20.20(i) - 20.20(j)	20.20(i)	20.20(j)	1.000
20.20(k) - 20.20(l)	20.20(k)	20.20(l)	1.000
20.20(m) - 20.20(n)	20.20(m)	20.20(n)	1.000
20.20(o) - 20.20(p)	20.20(o)	20.20(p)	1.000
20.20(q) - 20.20(r)	20.20(q)	20.20(r)	1.000
20.20(s) - 20.20(t)	20.20(s)	20.20(t)	1.000
20.20(u) - 20.20(v)	20.20(u)	20.20(v)	1.000
20.20(w) - 20.20(x)	20.20(w)	20.20(x)	1.000
20.20(y) - 20.20(z)	20.20(y)	20.20(z)	1.000



SHT. NO.	SHEET TITLE
1	TITLE SHEET
2A-2C	SITE LAYOUT PLANS
3	WELL PAD, STOCKPILE, & TAP PAD SECTIONS
4A-4B	ACCESS ROAD SECTIONS
5A-5G	GENERAL NOTES & DETAILS
6A-6C	RESTORATION PLAN
7	PROPERTY MAP

RECORD OWNER	RECORDED LOT #	RECORDED AREA OF LOT	AREA WITHIN LOT
GOODHART KENNETH PAUL	43-07-0055-0000	235.7 AC.	15.840 AC.
TOTAL LIMIT OF DISTURBANCE			15.840 AC.

EASTING	LONGITUDE
1402A ACCESS ROAD ENTRANCE	N 39.067144 W 81.066237

WELL / LOT	EAP.	LONG.
H-201	N 39.070512	W 81.066000
H-202	N 39.070234	W 81.065315

Michael Staff
8-28-18

- 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 1-800-245-4648 to identify all utility lines. The registrant also must clearly delineate sensitive areas, riparian forest buffer boundaries, the limits of clearing, and areas that are to be conserved within the project site, and shall install appropriate barriers where equipment may not be parked, staged, operated or located for any purpose.
 - Site access - This is the first land-disturbance activity to take place at the site and should provide BMPs to minimize accelerated erosion and sedimentation from the following areas: entrance to the site, construction routes, and areas designated for equipment or other use at the site including parking, stockpiles.
 - Sediment Barriers - Install perimeter BMPs after the construction site is accessed, keeping associated clearing and grubbing limited to only that amount required for installing perimeter BMPs.
 - Land Clearing and Grading - Implement clearing and grading only after all down-slope 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, Topsoiling, Trees and Shrubs - After construction is completed, install stabilization BMPs including permanent seeding, mulching and irrig, and complete implementation of stormwater BMPs in this final 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.

2018
STANDARD
2018
12/28/18

TITLE SHEET
HG 1402 PAD & TAP SITE
MURPHY DISTRICT
RITCHIE COUNTY, WEST VIRGINIA

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

ISSUED MAY 02/13/2018
REVISED MAY 09/20/2018
ISSUED MAY 09/20/2018
PROJECT NO. 2000-PA001583

Penn E&R
111 RYAN COURT, PITTSBURGH, PA 15205
412-722-1222

1. REPRESENTATIVE OF THE LANDOWNER SHALL BE RESPONSIBLE FOR VERIFYING LOCATION AND POSITION OF ALL UTILITIES THROUGH A UTILITY SERVICE.

CALL BEFORE YOU DIGI
WEST VIRGINIA
Dial 811 or 800.245.4848
DATE OF THIS SHEET

ISSUING OFFICE
PMS0795-001
SHEET 1

S:\PROJECTS\1402-002\1402-002\1402-002\HG_1402A_TAP_PAD_CONSTRUCTION\WORKSHEET_PAE.dwg, LAST DATE: 08/22/2018 4:17 PM

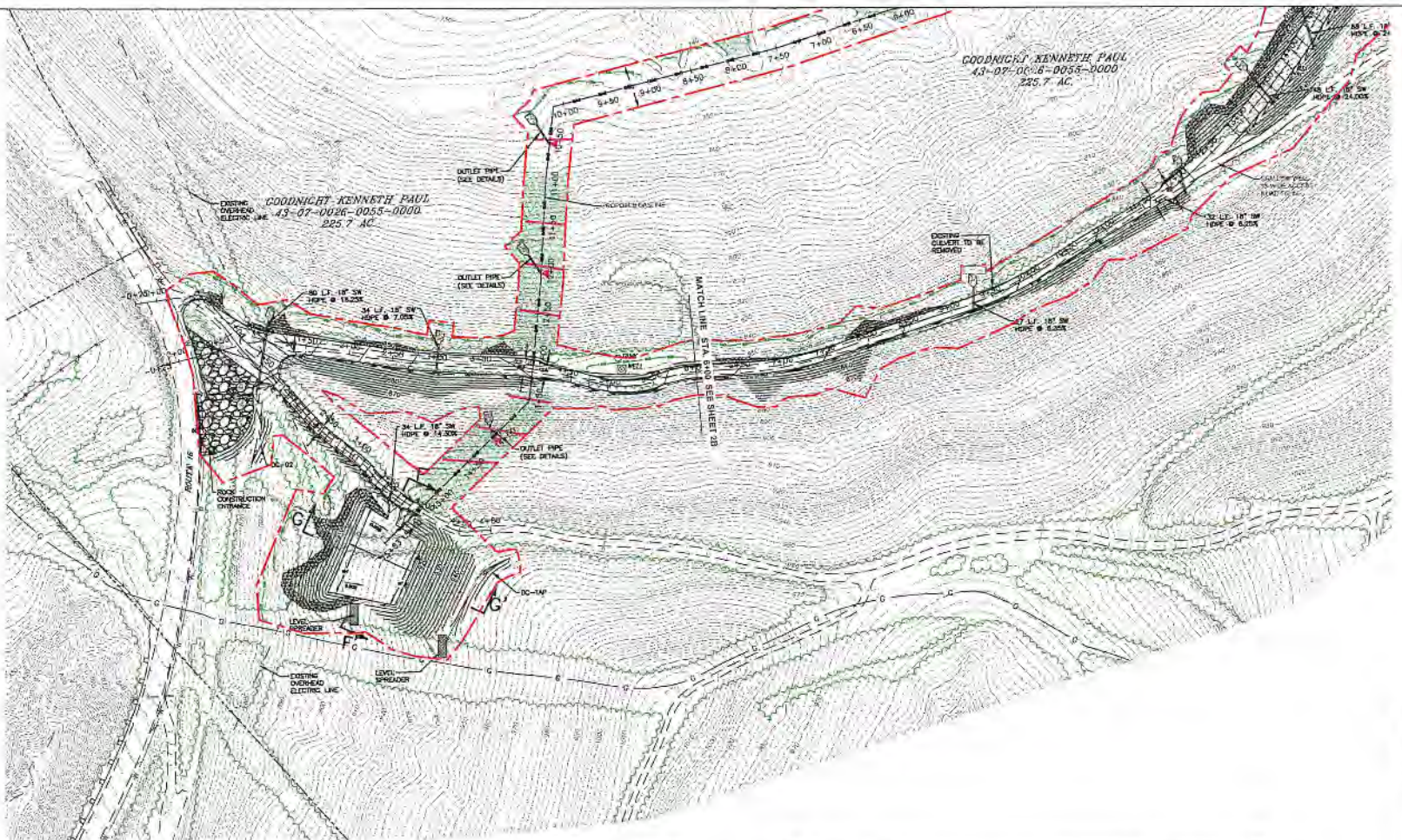
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SYNOPSIS FILED: 400-PAC07585 142 1422A WELL PAD/CAD TRAINING FACILITIES AND 1402A UTM STATIONED: 06/16/2018 4:37 PM

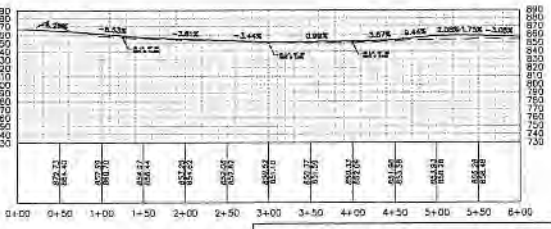
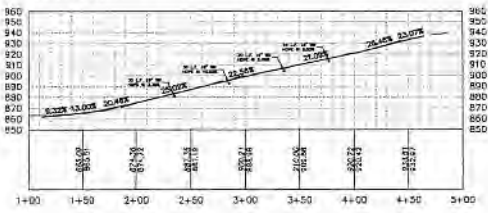
RECEIVED
Office of Oil and Gas

SEP 13 2018

WV Department of
Environmental Protection



- IMPORTANT GENERAL NOTES:**
1. REFER TO THE SHEET WITH THE CONNECTION NOTES AND DETAILS.
 2. CONTRACTOR SHALL CONDUCT WEST VIRGINIA STATE INSPECTION SERVICES (SIS) A MINIMUM OF 3 DAYS PRIOR TO EXPOSURE BEING UTILIZED. MUST BE IDENTIFIED AND LOGGED AS REQUIRED BY PROVISIONS OF CONSTRUCTION PERMITS TO EXPOSURE WORK AT THE SITE.
 3. SITE SHALL BE CONSTRUCTED IN ACCORDANCE WITH WELL DRILLING PERMITS CONTRACTOR RESPONSIBILITY TO MAINTAIN ALL OTHER NECESSARY PERMITS/NOTICES. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH WELL DRILLING PERMITS CONTRACTOR RESPONSIBILITY TO MAINTAIN ALL OTHER NECESSARY PERMITS/NOTICES. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH WELL DRILLING PERMITS CONTRACTOR RESPONSIBILITY TO MAINTAIN ALL OTHER NECESSARY PERMITS/NOTICES.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS/NOTICES FROM THE STATE OF WEST VIRGINIA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS/NOTICES FROM THE STATE OF WEST VIRGINIA.
 5. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS/NOTICES FROM THE STATE OF WEST VIRGINIA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS/NOTICES FROM THE STATE OF WEST VIRGINIA.
 6. ALL EXISTING UTILITIES SHALL BE IDENTIFIED AND MARKED PRIOR TO EXPOSURE. ALL EXISTING UTILITIES SHALL BE IDENTIFIED AND MARKED PRIOR TO EXPOSURE.
 7. NO EXPOSURE SHALL BE PLACED ON EXISTING UTILITIES. ALL EXISTING UTILITIES SHALL BE IDENTIFIED AND MARKED PRIOR TO EXPOSURE.
 8. EXISTING UTILITIES SHALL BE IDENTIFIED AND MARKED PRIOR TO EXPOSURE. ALL EXISTING UTILITIES SHALL BE IDENTIFIED AND MARKED PRIOR TO EXPOSURE.
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 12. CONTRACTOR SHALL CONDUCT WEST VIRGINIA STATE INSPECTION SERVICES (SIS) A MINIMUM OF 3 DAYS PRIOR TO EXPOSURE BEING UTILIZED. MUST BE IDENTIFIED AND LOGGED AS REQUIRED BY PROVISIONS OF CONSTRUCTION PERMITS TO EXPOSURE WORK AT THE SITE.
 13. CONTRACTOR SHALL CONDUCT WEST VIRGINIA STATE INSPECTION SERVICES (SIS) A MINIMUM OF 3 DAYS PRIOR TO EXPOSURE BEING UTILIZED. MUST BE IDENTIFIED AND LOGGED AS REQUIRED BY PROVISIONS OF CONSTRUCTION PERMITS TO EXPOSURE WORK AT THE SITE.



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

WEST VIRGINIA **CALL BEFORE YOU DIG!**
Dial 811 or 800.245.4848
PROJECT No. 400-PAC07585

REVISION	DATE	DESCRIPTION
1	8/16/18	MANHOLES TO WELL PAD & ACCESS ROAD SURROUNDING DETAILS
2	8/23/18	REVISED SLOPES, LOCATION & LIMITS OF DISTURBANCE

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

SCALE = FEET
0 50 100 150

SITE DEVELOPMENT PLAN WITH EROSION AND SEDIMENTATION CONTROLS
HG 1402 PAD & TAP SITE
MURPHY DISTRICT
RITCHIE COUNTY, WEST VIRGINIA

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

APPROVED: 08/12/2018
CHECKED: 08/16/2018
DRAWN: 08/16/2018
PROJECT No. 400-PAC07585
DRAWING NUMBER: PAC07585-001
SHEET: 2/2

Penn E&R
Environmental & Remediation, Inc.
111 MAIN COURT, PITTSBURGH, PA 15260
412-722-1222