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west virginia department of environmental protection

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

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

Thursday, August 1, 2019  
WELL WORK PERMIT  
Vertical / New Drill

HG ENERGY, LLC  
5260 DUPONT ROAD

PARKERSBURG, WV 26101

Re: Permit approval for CARR NICHOLAS NO. 131  
47-087-04793-00-00

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: CARR NICHOLAS NO. 131  
Farm Name: WILLIAM B. NICHOLS  
U.S. WELL NUMBER: 47-087-04793-00-00  
Vertical New Drill  
Date Issued: 8/1/2019

## PERMIT CONDITIONS

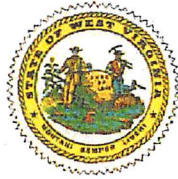
West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. 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 §22-6-20, 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 fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

FORM WW-3 (B)  
1/12



1) Date: 05/23/2019  
 2) Operator's Well No. Carr-Nichols 131  
 3) API Well No.: 47 - Roane - s  
 State County Permit  
 4) UIC Permit No. UIC2D0870985

**STATE OF WEST VIRGINIA  
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION  
 FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**

5) WELL TYPE: Liquid Injection  / Gas Injection (not storage)  / Waste Disposal   
 6) LOCATION: Elevation: 1087' Watershed: Rush Run  
 District: Smithville County Roane Quadrangle Looneyville 7.5'  
 7) WELL OPERATOR: HG Energy, LLC 8) DESIGNATED AGENT Diane White  
 Address 5260 Dupont Road Address 5260 Dupont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

9) OIL & GAS INSPECTOR TO BE NOTIFIED 10) DRILLING CONTRACTOR  
 Name Joe Taylor Name To Be Determined Upon Approval of Permit  
 Address 1478 Claylick Road Address \_\_\_\_\_  
Ripley, WV 25271

11) PROPOSED WELL WORK Drill  / Drill deeper  / Redrill  / Stimulate   
 Plug off old formation  / Perforate new formation  Convert   
 Other physical change in well (specify) \_\_\_\_\_

12) GEOLOGIC TARGET FORMATION Big Injun Depth 2310 Feet (top) to 2340 Feet (bottom)

13) Estimated Depth of Completed Well, (or actual depth of existing well): 2490' TMD Feet

14) Approximate water strata depths: Fresh 464 Feet Salt 1710 Feet

15) Approximate coal seam depths: NA

16) Is coal being mined in the area? Yes \_\_\_\_\_ No \_\_\_\_\_

17) Virgin reservoir pressure in target formation 1250 psig Source Estimated

18) Estimated reservoir fracture pressure 2650 psig (BHFP)

19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom hole pressure 2400 psi

20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES Fresh water, produced water,  
bactericides and other chemicals as needed to maintain water quality and improve oil recovery.

21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters

22) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL \_\_\_\_\_

**23) CASING AND TUBING PROGRAM**

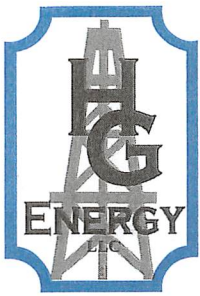
CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL -UP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For Drilling	Left In Well		
Conductor									Kinds
Fresh Water	7	LS	17#	x		525'	525'	CTS	
Coal									Sizes
Intermediate									2.375" x 4.5"
Production	4 1/2"	J-55	10.5#	x		2490'	2490'	150 sk, CTS	Depths of Office of Oil and Gas
Tubing	2 3/8"	J-55	4#	x		2240'	2240'		2150'
Liners									Perforations
									Top Bottom
									WV Department of Environmental Protection

24) APPLICANT'S OPERATING RIGHTS were acquired from Nicholas Carr, et ux  
 by deed \_\_\_\_\_ / lease x / other contract \_\_\_\_\_ / dated \_\_\_\_\_ of record in the  
Roane County Clerk's office in lease Book 4 Page 201

*Joe Taylor*  
5-6-19

RECEIVED  
 JUN 14 2019  
 Office of Oil and Gas





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

May 23, 2019

Cameron Spaur  
4041 Clay Road  
Spencer, WV 25276

RE: Carr Nichols No. 131  
Smithfield District, Roane County  
West Virginia

Dear Landowner:

Enclosed are copies of various application papers that we have filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

Pursuant to WV Code Chapter 22B, Article 6, you are receiving copies of this correspondence because the well or other anticipated disturbance is located on your surface property. Your rights as a landowner are detailed in the enclosed permit application papers.

No action on your part is required. If you have any questions or comments regarding this application, you may call this office at (304) 420-1119.

Very truly yours,

*Diane White*

Diane C. White

Enclosures

RECEIVED  
Office of Oil and Gas

JUN 14 2019

WV Department of  
Environmental Protection



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

4708704793S

May 23, 2019

Michael Anderson  
598 Poca Road  
Looneyville, WV 25259

RE: Carr Nichols No. 131  
Smithfield District, Roane County  
West Virginia

Dear Landowner:

Enclosed are copies of various application papers that we have filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

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*Diane White*

Diane C. White

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Office of Oil and Gas

JUN 14 2019

WV Department of  
Environmental Protection



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

---

May 23, 2019

William B. Nichols  
2557 Clay Road  
Spencer, WV 25276

RE: Carr Nichols No. 131  
Smithfield District, Roane County  
West Virginia

Dear Landowner:

Enclosed are copies of various application papers that we have filed with the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas. A well work permit is being requested for the above-referenced well.

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Very truly yours,

*Diane White*

Diane C. White

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Office of Oil and Gas

JUN 14 2019

WV Department of  
Environmental Protection

WW-9  
(2/15)

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Carr Nichols No. 131

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy, LLC OP Code 494497948

Watershed (HUC 10) Rush Run Quadrangle Looneyville 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: Fluids encountered in drilling the injection well

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? 20 mil

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Fluids will be moved to an approved off site disposal facility)

Will closed loop system be used? If so, describe: No

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

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

Additives to be used in drilling medium? Water, Soap, KCl

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

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

-Landfill or offsite name/permit number? To be determined upon approval of permit

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

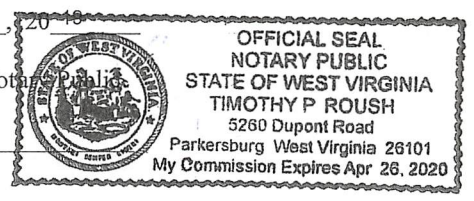
Company Official (Typed Name) Diane White

Company Official Title Agent

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JUN 14 2019  
WV Department of  
Environmental Protection

Subscribed and sworn before me this 23 day of May

My commission expires 4/26/2020





HG Energy, LLC

Proposed Revegetation Treatment: Acres Disturbed 0.7 acres Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Straw 2 Tons/acre

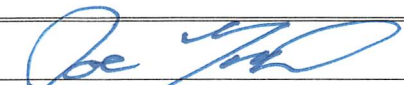
Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

Comments: seedmint control to be in place and maintained at all time.

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JUN 14 2019  
WV Department of  
Environmental Protection

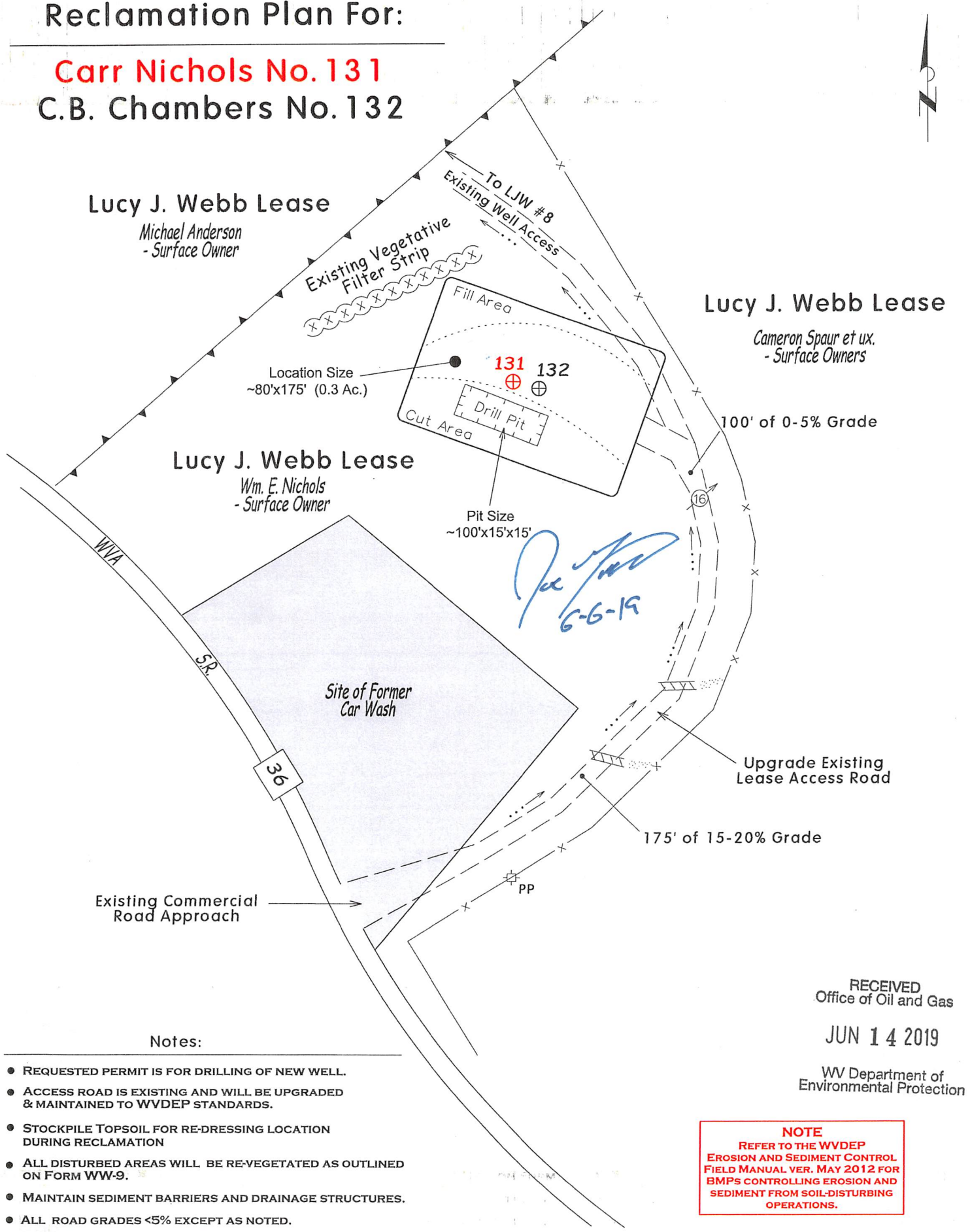
Title: OGG Inspector

Date: 6-6-19

Field Reviewed? ( X ) Yes ( ) No

# Reclamation Plan For:

## Carr Nichols No. 131 C.B. Chambers No. 132



Existing Commercial Road Approach

### Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- ACCESS ROAD IS EXISTING AND WILL BE UPGRADED & MAINTAINED TO WVDEP STANDARDS.
- STOCKPILE TOPSOIL FOR RE-DRESSING LOCATION DURING RECLAMATION
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

**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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 JUN 14 2019  
 WV Department of  
 Environmental Protection

WW-2B1  
(5-12)

Well No. Carr Nichols No. 131

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name	<u>Sturm Environmental Labs</u>
Sampling Contractor	<u>Sturm Environmental Labs</u>

Well Operator	<u>HG Energy, LLC</u>	RECEIVED Office of Oil and Gas
Address	<u>5260 Dupont Road</u> <u>Parkersburg, WV 26101</u>	JUN 14 2019
Telephone	<u>304-420-1119</u>	WV Department of Environmental Protection

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

- See Attached Page for List of Persons to be Tested -

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

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FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

Surface Owners Identified With Water Sources to be Sampled and Tested:

William B. Nichols  
2557 Clay Road  
Spencer, WV 25276

Cameron Spaur  
4041 Clay Road  
Spencer, WV 25276

Michael Anderson  
598 Poca Road |  
Looneyville, WV 25259

Bradley D. Smith  
4026 Clay Road  
Spencer, WV 25276

Brian Koon  
6 Bosley Drive  
Stanley, VA 22851

Cameron Spaur  
4041 Clay Road  
Spencer, WV 25276

Maurice Johnson Est.  
Clay Route, Box 73  
Spencer, WV 25276

Timothy Benear  
3994 Clay Road  
Spencer, WV 25276

Robert Clarkson  
1061 Parkersburg Road  
Spencer, WV 25276

Clover VFD  
200 Main Street  
Spencer, WV 25276

Donald Carpenter  
3882 Clay Road  
Spencer, WV 25276

Stephen Cale  
3825 Clay Road  
Spencer, WV 25276

Stephen Cale  
PO Box 191  
Spencer, WV 25276

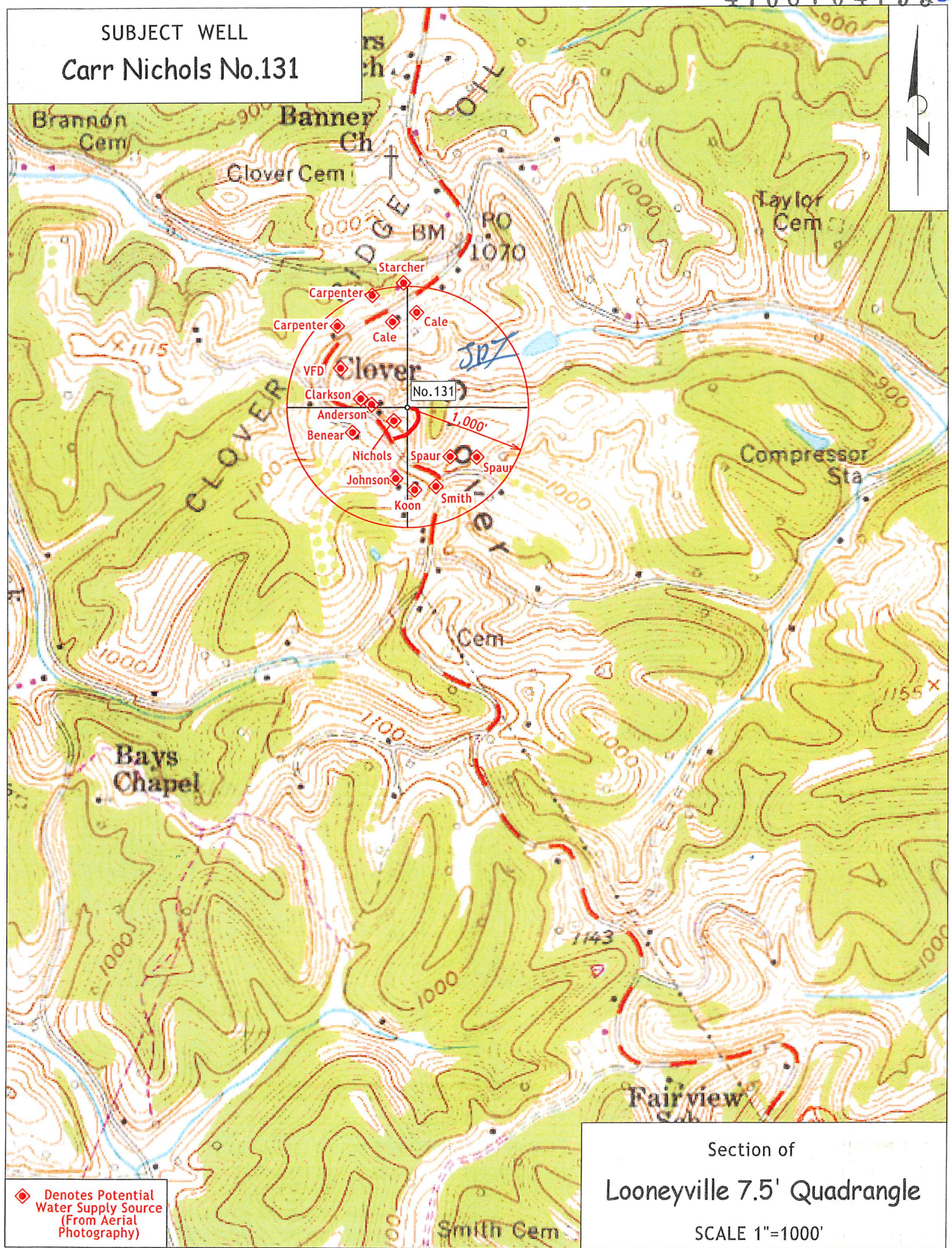
*JPZ*

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Office of Oil and Gas

JUN 14 2019

WV Department of  
Environmental Protection

SUBJECT WELL  
Carr Nichols No.131



◆ Denotes Potential Water Supply Source (From Aerial Photography)

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

Longitude = 81°17' 13.28"

10,560'

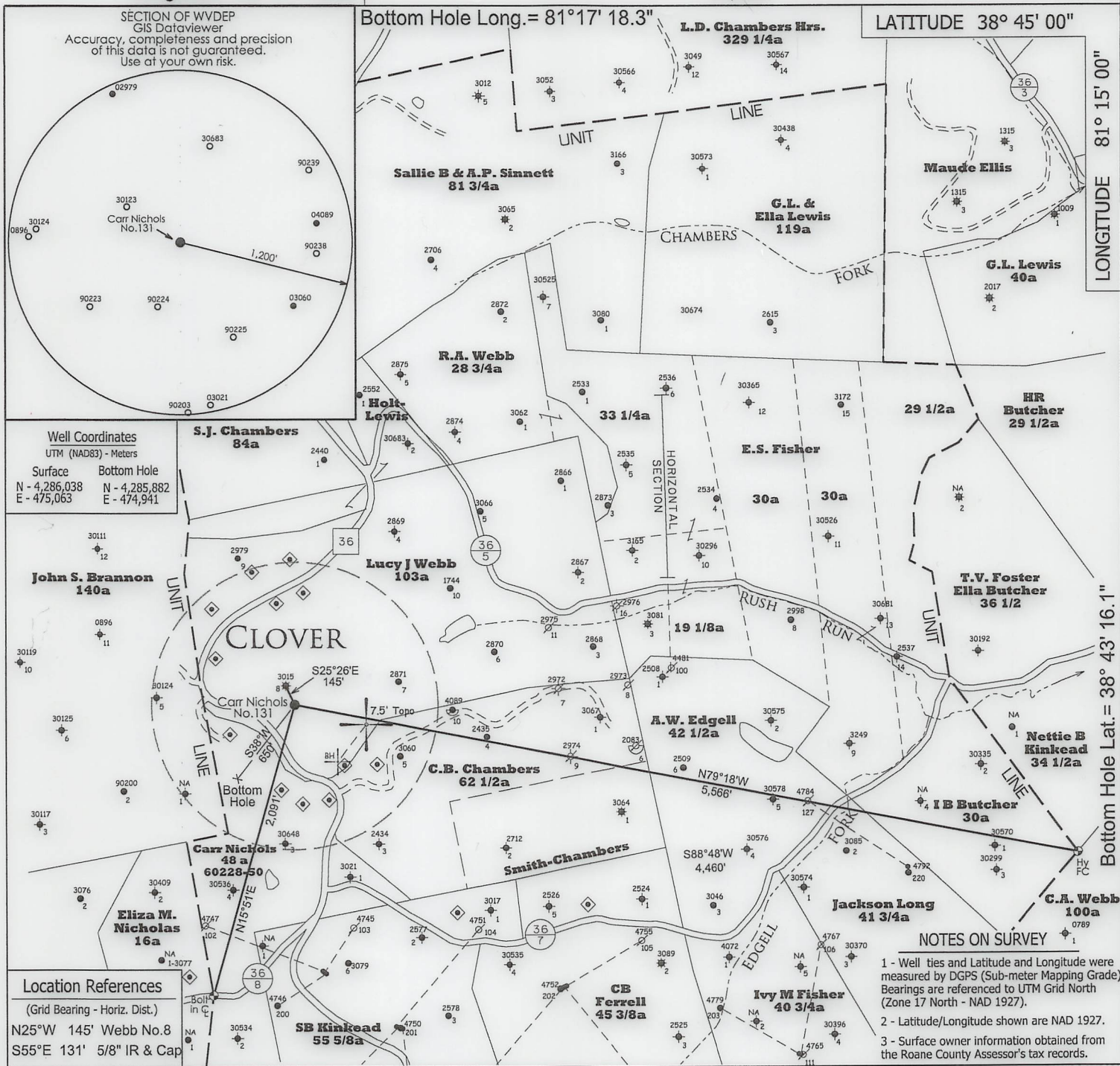
LATITUDE 38° 45' 00"

LONGITUDE 81° 15' 00"

9,995'

Bottom Hole Lat. = 38° 43' 21.19"

Latitude = 38° 43' 21.19"



Well Coordinates  
UTM (NAD83) - Meters

Surface	Bottom Hole
N - 4,286,038	N - 4,285,882
E - 475,063	E - 474,941

Location References  
(Grid Bearing - Horiz. Dist.)

N25°W 145' Webb No.8
S55°E 131' 5/8" IR & Cap

- NOTES ON SURVEY
- 1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade) Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).
  - 2 - Latitude/Longitude shown are NAD 1927.
  - 3 - Surface owner information obtained from the Roane County Assessor's tax records.

- ◆ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM NAIP 2016 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.
- ⊕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

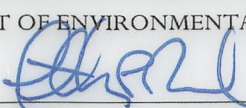
FILE NO. 1486

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY Sub-Meter

PROVEN SOURCE OF ELEVATION DGPS Survey  
(Sub-Meter Mapping Grade)

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) 

TIMOTHY P. ROUSH PS 793



WEST VIRGINIA  
Division of Environmental Protection  
Office of Oil and Gas  
601 57th Street  
Charleston, West Virginia 25301



DATE May 1, 2019

FARM Carr Nichols No.131

API WELL NO. 47 - 087 - 04793S

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

LOCATION: ELEVATION 1,087' WATERSHED Rush Run

DISTRICT Smithfield COUNTY Roane

QUADRANGLE Looneyville 7.5'

SURFACE OWNER William B. Nichols ACREAGE 1.46 Ac.

OIL & GAS ROYALTY OWNER HG Energy, LLC., et al LEASE ACREAGE 48 Ac.

LEASE NO. 60228-50

PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Well will be directionally drilled as shown.

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_

TARGET FORMATION Big Injun ESTIMATED DEPTH 2,490' TMD

WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Diane White

ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road  
Parkersburg, WV 26101 Parkersburg, WV 26101

FORM IV-6