west virginia department of environmental protection

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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

October 09, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-9501538, issued to HG ENERGY, LLC, 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 all 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: J. LEMASTERS H-11
Farm Name: WADSWORTH, FRANCES & C.I.
API Well Number: 47-9501538
Permit Type: Plugging
Date Issued: 10/09/2015

Promoting a healthy environment.

9501538P

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

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. 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.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. This well is under a consent order and must be plugged under the terms of that agreement.

9501538P

WW-4B
Rev. 2/01

Ck#3101
$100.00

1) Date July 16, 2015
2) Operator's
Well No. Jasper Lemasters H-11
3) API Well No. 47-095-01538

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil X / Gas X / Liquid injection ____ / Waste disposal ____ /
(If "Gas, Production X or Underground storage ____) Deep ____ / Shallow X

5) Location: Elevation 967'
District McElroy
Watershed Left Hand Fork
County Tyler
Quadrangle Centerpoint 7.5'

6) Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101

7) Designated Agent Diane White
Address 5260 Dupont Road
Parkersburg, WV 26101

8) Oil and Gas Inspector to be notified
Name Mike Goff
Address PO Box 134
Pullman, WV 26421

9) Plugging Contractor
Name To Be Determined Upon Approval of Permit
Address

10) Work Order: The work order for the manner of plugging this well is as follows:

See attached sheet

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AUG 17 2015
WV Department of
Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Michael Goff Date 7-30-15

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Rev. 2/01

1) Date: July 16, 2015
2) Operator's Well Number
Jasper Lemasters H-11
3) API Well No: 47 - 095 - 1538
State County Permit

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) WELL TYPE: Oil X Gas X Liquid Injection ____ Waste Disposal ____
(If "Gas", Production ____ Underground Storage ____) Deep ____ Shallow X

5) LOCATION: Elevation: 967' Watershed: Left Hand Fork
District: McElroy County: Tyler Quadrangle Centerpoint 7.5'

6) WELL OPERATOR: HG Energy, LLC 4.94E+08
Address 5260 Dupont Road
Parkersburg, WV 26101

7) DESIGNATED AGENT Diane White
Address 5260 Dupont Road
Parkersburg, WV 26101

8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Mike Goff
Address PO Box 134
Pullman, WV 26421

9) PLUGGING CONTRACTOR
Name To Be Determined Upon Approval of Permit
Address

MSG
7-30-15

10) WORK ORDER: The work order for the manner of plugging this well is as follows:

TD- 3,041'

Manners of plugging:
SPOT GEL.
Plug #1 2900' - 2800'
Free Point, part and pull 4 1/2" casing approx. 1900'
Plug #2 - approx. 1950' - 1850'
Located at 4 1/2" casing stub
Plug #3 - 1025' - 725'
Located at Elevation and through Pittsburgh Coal
Plug #4 -275' - 0'
Located at 8 5/8" shoe/ through fresh water to surface

Recover all possible casing. If casing can not be recovered, perforate for plug placement.

Monument:
6" minimum diameter metal pipe
30" above surface
10' in well below surface
Sealed with cement
API identification (1/2") height numbering

6% Gel between all plugs

OFFICE USE ONLY

PLUGGING PERMIT

Permit Number _____ _____ 19____
Date

This permit covering the well operator and the well location shown below is evidence of permission granted to plug in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector 24 hours before actual work has commenced.

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires _____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	WPCP	Other

_____
Chief, Office of Oil & Gas

NOTE: Keep one copy of this permit posted at the plugging location.

See the reverse side of the APPLICANT'S COPY for instuctions to the well operator

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9501538P

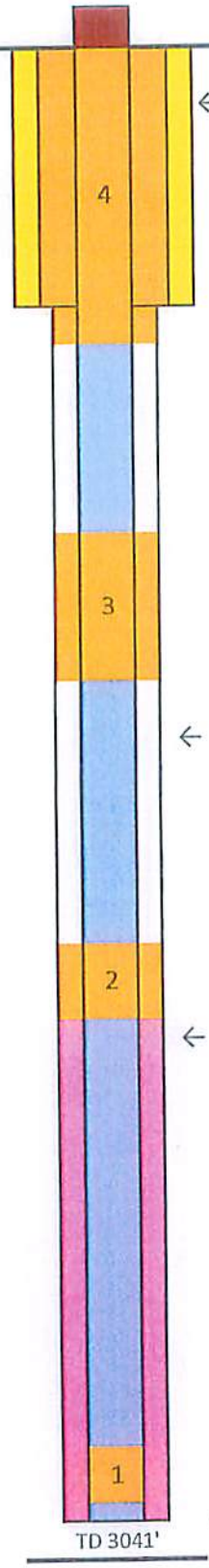
Well: J. Lemasters H11

Elevation: 967'

Monument to extend 30" above surface. 10' into well. 6" min metal pipe, sealed with cement. API I.D.

Casing Information		
Size	Depth	Weight
8 5/8"	216'	20#/ft.
4 1/2"	2977'	10.5#/ft.

Pittsburgh Coal 779'



100 sacks cement to surface

Freepoint Cut and Pull Casing	
Size	Approx. Depth
4 1/2	1900'

Cement Plugs		
NO.	Bottom	Top
1	2900	2800
2	1950	1850
3	1025	725
4	275	0

7 7/8" Hole Size

300 Sks Cement T.O.C. 2000'

Highest Perforation 2930'

Bottom Hole Cement Level Calculations

# Sacks Used	Cement Depth
300	2001.468

Hole Size	Casing Size	Depth
7.875	4.5	2977

diameter delta	Conv. Factor	bbls / ft.
41.765625	1029.4	0.040573

cubic ft. per vertical ft. depth
0.227795902

Sacks per vertical ft. depth
0.307524468

Yield options

50/50 posmix 6% gel = 1.64
Neat w/ salt flakes = 1.19
50/50 w/ 2% gel = 1.27

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MDC
7-30-15

9501538P

27-May-93

API # 47- 95-01538

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: WADSWORTH, FRANCES & C.I. Operator Well No.: J.LEMASTERS H11

LOCATION: Elevation: 967' Quadrangle: Centerpoint

District: MCELROY County: TYLER
Latitude: 11,950 Feet South of 39 Deg. 30 Min. 00 Sec.
Longitude 6,500 Feet West of 80 Deg. 40 Min. 00 Sec.

Company: PENNZOIL PRODUCTS COMPANY
P. O. BOX 5519
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: MIKE UNDERWOOD
Permit Issued: 05/28/93
Well work Commenced: 7/6/93
Well work Completed: 9/17/93
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 3041
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): _____

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
8 5/8	216.20	216.20	100 Sks.
4 1/2	2977.66	2977.66	300 Sks.

OPEN FLOW DATA

Producing formation Gordon Pay zone depth (ft) 2908 - 2965
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/
Final open flow * MCF/d Final open flow * Bbl/
Time of open flow between initial and final tests _____ Hour
Static rock Pressure _____ psig (surface pressure) after _____ Hour

* Waterflood Producer - Not Tested

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/
Final open flow _____ MCF/d Final open flow _____ Bbl/
Time of open flow between initial and final tests _____ Hour
Static rock Pressure _____ psig (surface pressure) after _____ Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WEL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY

By: [signature]
Date: 12/6/93

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TREATMENT:

PERFORATED: 2930 - 2944 2 Holes Per Foot - 28 Holes

TREATED: 300 Gal. 15% HCL Acid & 289 Bbl. Gelled Water & 1500# 80/100 Sand & 3500# 20/40 Sand

WELL LOG:

Sand & Shale	0 - 630
Sand	630 - 696
Sand & Shale	696 - 1240
Sand	1240 - 1290
Shale	1290 - 1442
Sand	1442 - 1495
Sand & Shale	1495 - 1645
Sand	1645 - 1676
Shale	1676 - 1835
Sand	1835 - 1884
Shale	1884 - 2052
Little Lime	2052 - 2068
Pencil Cave	2068 - 2080
Big Lime	2080 - 2150
Big Injun	2150 - 2350
Shale	2350 - 2908
Stray	2908 - 2915
Gordon	2915 - 2965
T.D.	3041

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WW-4A
Revised 6-07

1) Date: July 16, 2015
2) Operator's Well Number
Jasper Lemasters H-11

3) API Well No.: 47 - 095 - 01538

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:
(a) Name: WV DNR
Address: Capital Complex, Bldg 3, Room 643
Charleston, WV 25305

(b) Name
Address

(c) Name
Address

6) Inspector: Mike Goff
Address: P. O. Box 134
Pullman, WV 26421
Telephone: 304-549-9823

5) (a) Coal Operator
Name: NA
Address

(b) Coal Owner(s) with Declaration
Name: NA
Address

Name
Address

(c) Coal Lessee with Declaration
Name: NA
Address

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

(1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
(2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

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AUG 17 2015
WV Department of
Environmental Protection

Well Operator: HG Energy, LLC
By: Diane White — Diane White
Its: Agent
Address: 5260 Dupont Road
Parkersburg, WV 26101
Telephone: 304-420-1119

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Oct. 4, 2016

Subscribed and sworn before me this 16th day of July 2015
S Dianne Dulaney Notary Public
My Commission Expires Oct 4 2016

MDG
7-30-15

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 of your personal information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

9501538P

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 095 - 01538
Operator's Well No. Jasper Lemasters H-11

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name HG Energy, LLC OP Code 494497948

Watershed Left Hand Fork Quadrangle Centerpoint 7.5"

Elevation 967' County Tyler District McElroy

Description of anticipated Pit Waste: Fluids encountered while plugging subject well

Will a synthetic liner be used in the pit? Yes pit must be lined with a minimum of 20 mil thickness synthetic liner. TPW

MDCo 7-30-15

Proposed Disposal Method For Treated Pit Wastes:

- x Land Application
- ____ Underground Injection (UIC Permit Number ____)
- ____ Reuse (at API Number ____)
- ____ Off Site Dispposal (Supply form WW-9 for disposal location)
- ____ Other (Explain ____

Proposed Work For Which Pit Will Be Used:

- ____ Drilling
- ____ Workover
- ____ Other (Explain ____
- ____ Swabbing
- X Plugging

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

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

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Environmental Protection

Company Official Signature Diane White

Company Official (Typed Name) Diane White

Company Official Title Agent

Subscribed and sworn before me this 16th day of July, 2015

S Dianne Delaney
Notary Public

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
S. DIANNE DULANEY
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Oct. 4, 2016

My commission expires Oct 4, 2016

9501538P

Form WW-9

Operator's Well No. Jasper Lemasters H-11

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 0.7 acres Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch Straw 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

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Attach:
Drawing(s) of road, location,pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

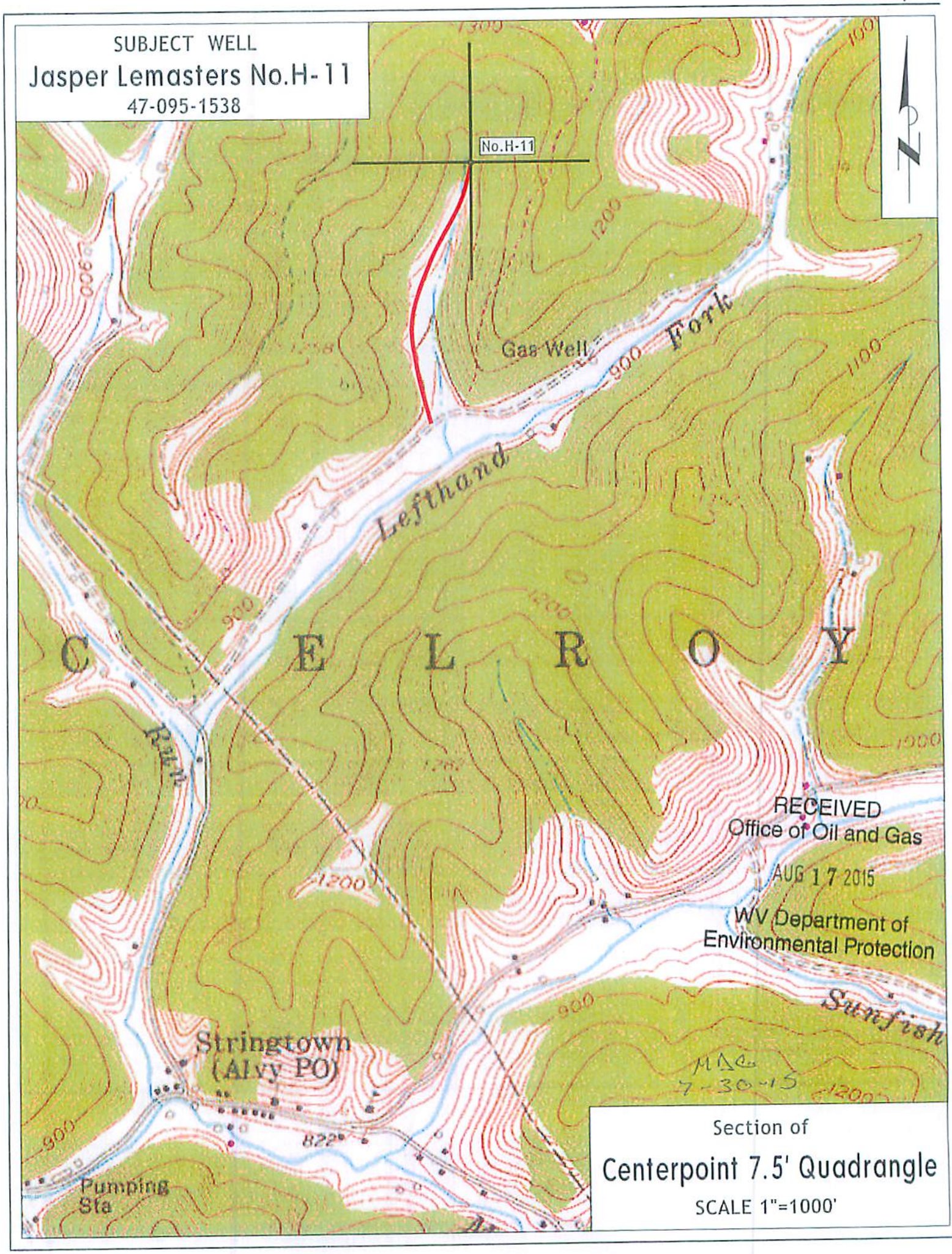
Plan Approved by: Michael Doff

Comments: Presseed & mulch any disturbed areas

Title: Oil & Gas Inspector Date: 7-30-15

Field Reviewed? ( ) Yes (✓) No

9501538P


SUBJECT WELL
Jasper Lemasters No.H-11
47-095-1538
No.H-11
N
Gas Well
Lefthand
Fork
C E L R O Y
Run
Sunfish
Stringtown
(Alvy PO)
Pumping
Sta
1300
1200
1100
1000
900
822
RECEIVED
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AUG 17 2015
WV Department of
Environmental Protection
MAC
7-30-15
Section of
Centerpoint 7.5' Quadrangle
SCALE 1"=1000'

9501538P

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas
WELL LOCATION FORM: GPS

API: 47- 095 - 1538 **WELL NO:** H-11

FARM NAME: Jasper Lemasters No.H-11

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Tyler **DISTRICT:** McElroy

QUADRANGLE: Centerpoint 7.5'

SURFACE OWNER: W.Va. Dept. of Natural Resources

ROYALTY OWNER: American Energy Partners, LLC et al.

UTM GPS NORTHING: 4,368,659 (NAD 83)

UTM GPS EASTING: 526,717 (NAD 83) **GPS ELEVATION:** 295 m.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	___	Post Processed Differential	___
		Real-Time Differential	___
Mapping Grade GPS	X	Post Processed Differential	X
		Real-Time Differential	___

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I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Diane White — Diane C. White — Designated Agent
Signature — Title

June 3, 2015
Date