



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

August 03, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10301958, 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 penalties 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: F. L. HOGE 12
Farm Name: WV PUBLIC LANDS
API Well Number: 47-10301958
Permit Type: Plugging
Date Issued: 08/03/2015

Promoting a healthy environment.

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.

10301958A

WW-4B
Rev. 2/01

1) Date _____, 20____
2) Operator's
Well No. FL Hoge 12
3) API Well No. 47-100 - 1258

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 _____ / Liquid injection _____ / Waste disposal _____ /
(If "Gas, Production _____ or Underground storage _____) Deep _____ / Shallow X

5) Location: Elevation 1007' Watershed Cale Run
District Green County Wetzel Quadrangle Centerpoint 7.5'

6) Well Operator HG Energy, LLC 7) Designated Agent Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101

8) Oil and Gas Inspector to be notified Name Derek Haught
Address P. O. Box 85
Smithville, WV 26178
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"

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

Received
Office of Oil & Gas
JUL 13 2015

Work order approved by inspector [Signature] Date 7-6-15

10301958P

WW-4B
Rev. 2/01

1) Date: June 22, 2015
2) Operator's Well Number FL Hoge 12
3) API Well No: 47 - 103 - 1958
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 _____ Liquid Injection _____ Waste Disposal _____
(If "Gas", Production _____ Underground Storage _____) Deep _____ Shallow x
5) LOCATION: Elevation: 1107' Watershed: Cale Run
District: Green County: Wetzel Quadrangle Centerpoint 7.5'
6) WELL OPERATOR: HG Energy, LLC 4.94E+08 7) DESIGNATED AGENT Diane White
Address 5260 Dupont Road Address 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101
8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR
Name Derek Haught Name To Be Determined Upon Approval of Permit
Address P. O. Box 85 Address _____
Smithville, WV 26178

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

TD- 3,140'

Manners of plugging:

- Plug #1 2900' - 2800'
Located above lower perforations
- Plug #2 - 2250' - 2150'
Located across perforations (2180' - 2195')
- Free point, part and pull 4 1/2" casing at approx. 1900'
- Plug #3 -1950' - 1850'
Located at 4 1/2" casing stub
- Plug #4 - 1050' ~~-750'~~ - 500'
Located at elevation and through Pittsburg Coal & coal @ 529'.
- Plug #5 - 300' - 0'
Located at 8 5/8" casing stub, through Fresh Water and to surface

WR-35 STATES
COAL @ 529'

- 6" minimum diameter metal pipe
- 30" above surface
- 10' in well below surface
- 6% Gel between all plugs
- API identification (1/2") height numbering

DAH
7-6-15

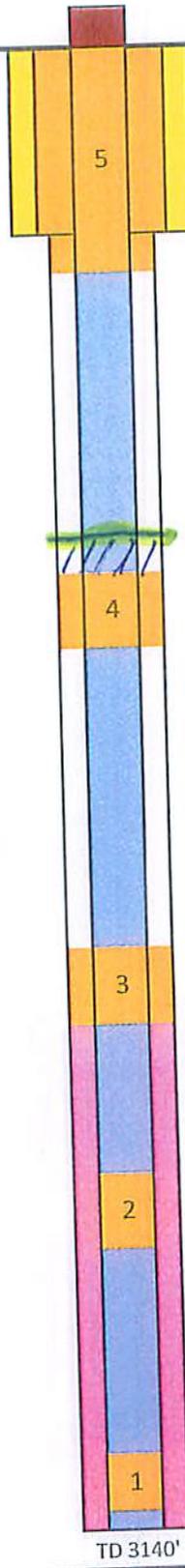
Received
Office of Oil & Gas
JUL 13 2015

Well: F.L. Hogue #12

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

Elevation: 1007'

Casing Information		
Size	Depth	Weight
8 5/8"	253	20#/ft.
4 1/2"	3083	10.5#/ft.



← cement to surface

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

Cement Plugs		
NO.	Bottom	Top
1	2900	2800
2	2250	2150
3	1950	1850
4	1050	750
5	300	0

Pittsburgh Coal 828'

← 7 7/8" Hole Size

Bottom Hole Cement Level Calculations

Sacks Used Cement Depth
280 2041.33

Hole Size Casing Size Depth
7.875 4.5 3083

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
0.268799164

Yield options

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

← 280 Sks Cement T.O.C. 2040'

Perforations 2180' - 2195', 2992' - 2998' |

DMH
7-6-15
Received
Office of Oil & Gas
JUL 13 2015

TD 3140'

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

10301958A
Stoughton
COPY

Well Operator's Report of Well Work

Farm name: W V PUBLIC LANDS
LOCATION: Elevation: 1,007.00
District: GREEN
Latitude: 8,600 Feet south of
Longitude: 5,275 Feet west of

Operator Well No.: HOGUE 12
Quadrangle: CENTERPOINT 7.5'
County: WETZEL
39 Deg 30 Min 30 Sec.
80 Deg 40 Min 00 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: MIKE UNDERWOOD
Permit Issued: 06/03/03
Well work Commenced: 06/25/03
Well work Completed: 07/15/03
Verbal plugging permission granted on:
Rotary X Cable _____ Rig _____
Total Depth (feet) 3140
Fresh water depths (ft) NA

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	253.00'	253.00'	110 sks
4 1/2"	3083.50'	3083.50'	280 sks

Salt water depths (ft) NA
NA
Is coal being mined in area (Y/N) N
Coal Depths (ft): 529

OPEN FLOW DATA

Not Completed

This well directionally drilled to a bottom hole location of _____

Producing formation - Gordon Pay zone depth (ft) 2986-2998
Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
Final open flow * MCF/d Final open flow * Bbl/d
Time of open flow between initial and final tests * Hours
Static rock pressure * psig (surface pressure) after _____ Hours

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

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

For: EAST RESOURCES, INC.

By: _____

Date: _____

Received
Office of Oil & Gas
JUL 13 2015

Treatment : This well was not completed

<u>Well Log :</u>	0	140	Sand and Shale
	140	206	Sand
	206	610	Shale
	610	724	Sand
	724	826	Shale
	826	850	Sand
	850	874	Shale
	874	932	Sand
	932	1252	Shale
	1252	1326	Sand
	1326	1378	Shale
	1378	1446	Sand
	1446	1465	Shale
	1465	1514	Sand
	1514	1554	Shale
	1554	1600	Sand
	1600	1870	Shale
	1870	1914	Sand
	1914	1948	Shale
	1948	1988	Sand
	1988	2080	Shale
	2080	2110	Sand
	2110	2174	Big Lime
	2174	2360	Big Injun
	2360	2960	Shale
	2960	2986	Gordon Stray
	2986	2998	Gordon
	2998	3140	Shale

WW-4A
Revised 6-07

1) Date: June 22, 2015
2) Operator's Well Number
F. L. Hoge 12
3) API Well No.: 47 - 103 - 1958

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

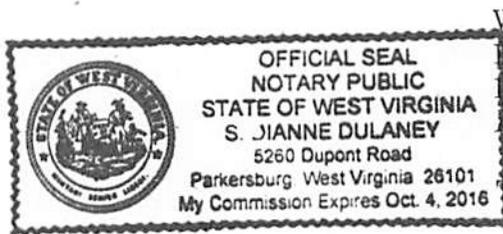
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>West Virginia Dept of Natural Resources</u>	Name <u>NA</u>
Address <u>Capital Complex, B3, Room 643</u>	Address _____
<u>Charleston, WV 25305</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>NA</u>
_____	Address _____
(c) Name _____	Name <u>NA</u>
Address _____	Address _____
_____	_____
6) Inspector <u>Derek Haught</u>	(c) Coal Lessee with Declaration
Address <u>P. O. Box 85</u>	Name <u>NA</u>
<u>Smithville, WV 26178</u>	Address _____
Telephone <u>304-206-7613</u>	_____

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.



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

Subscribed and sworn before me this 22nd day of June, 2015

S. Jianne Dulaney
My Commission Expires Oct. 4, 2016

Received
Office of Oil & Gas
Notary Public
JUL 13 2015

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 depprivacyofficer@wv.gov.

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 Cale Run Quadrangle Centerpoint 7.5'

Elevation 1007' County Wetzel District Green

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

Will a synthetic liner be used in the pit? Yes 2011.

DMB
7-6-15

- 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 _____)

- Proposed Work For Which Pit Will Be Used:
- Drilling
 - Workover
 - Other (Explain _____)
 - Swabbing
 - 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.

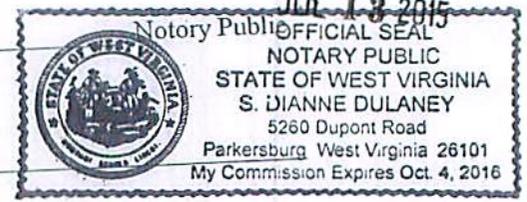
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is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

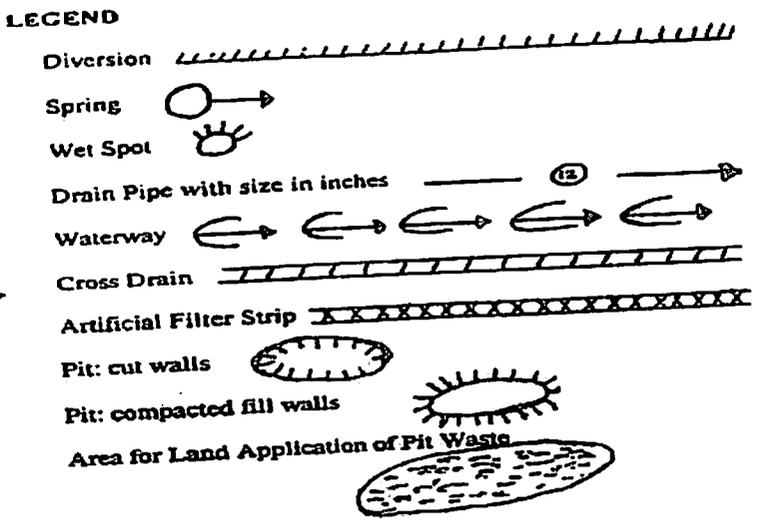
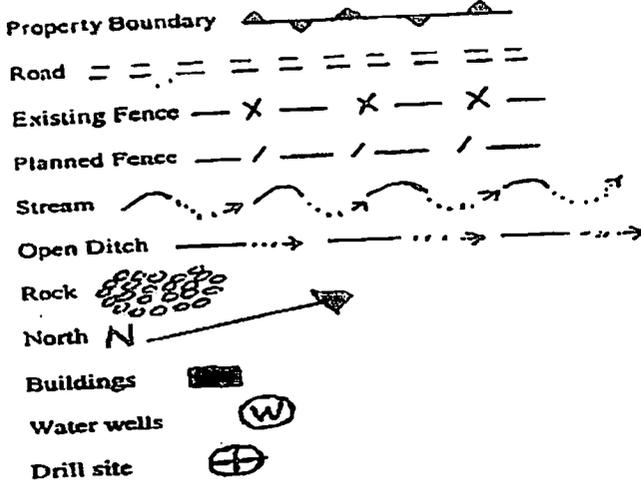
Company Official Signature Diane White
 Company Official (Typed Name) Diane White
 Company Official Title Agent

Subscribed and sworn before me this 22 day of June, 2015 Received
Office of Oil & Gas

[Signature]

My commission expires Oct. 4, 2016





Proposed Revegetation Treatment: Acres Disturbed 0.9 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 II	
Seed Type	Area I	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

****Sediment control should be in place at all times****

Attach:
 Drawing(s) of road, location, pit and proposed area for land application.
 Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

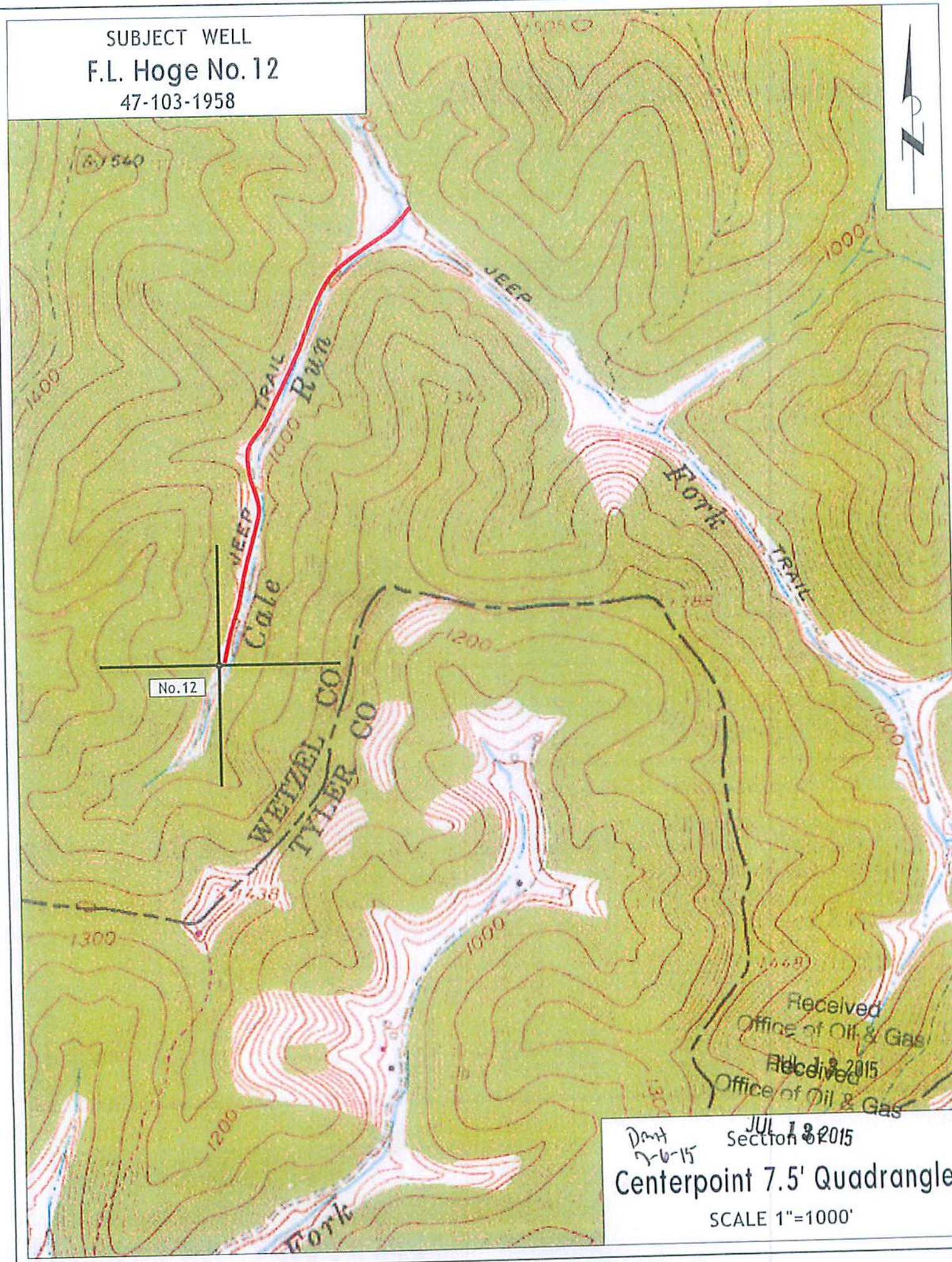
Received
 Office of Oil & Gas
 JUL 18 2015

Title: Oil + Gas Inspector

Date: 7-6-15

Field Reviewed? Yes No

SUBJECT WELL
F.L. Hoge No. 12
47-103-1958



No. 12

Received
Office of Oil & Gas
JUL 13 2015
Received
Office of Oil & Gas

Dmt
7-6-15
JUL 13 2015
Sector 8
Centerpoint 7.5' Quadrangle
SCALE 1"=1000'

10301958P

WW-7
5-02

West Virginia Department of Environmental Protection
Office of Oil & Gas

WELL LOCATION FORM: GPS

API: 47- 103 - 1958 WELL NO: 12

FARM NAME: F.L. Hoge No.12

RESPONSIBLE PARTY NAME: H.G. Energy, LLC

COUNTY: Wetzel DISTRICT: Green

QUADRANGLE: Centerpoint 7.5'

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

ROYALTY OWNER: American Energy Partners, LLC et al.

UTM GPS NORTHING: 4,369,690 (NAD 83)

UTM GPS EASTING: 527,079 (NAD 83) GPS ELEVATION: 312 m. (1023')

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	<input type="checkbox"/> Post Processed Differential	<input type="checkbox"/>
	<input type="checkbox"/> Real-Time Differential	<input type="checkbox"/>
Mapping Grade GPS	<input checked="" type="checkbox"/> Post Processed Differential	<input checked="" type="checkbox"/>
	<input type="checkbox"/> Real-Time Differential	<input type="checkbox"/>

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
Signature

June 3, 2015
Date

Designated Agent Office of Oil & Gas
Title

Received
Office of Oil & Gas
JUL 13 2015