



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 08, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-3305780, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: W.B. CARPENTER NO. 237
Farm Name: JUNKINS, EARL & BELVA

API Well Number: 47-3305780

Permit Type: Vertical Well

Date Issued: 08/08/2013

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. 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 within 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.

3705780

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: HG Energy, LLC
- 2) Operator's Well Number: W. B. Carpenter No. 237 3) Elevation 1390'
- 4) Well Type: (a) Oil X or Gas _____
 (b) If Gas: Production _____ Underground Storage _____
- 5) Proposed Target Formation(s): Fifth Sand
- 6) Proposed Total Depth: 3250' TVD 3400' TMD ft.
- 7) Approximate fresh water strata depths: 100'
- 8) Approximate salt water depths: 1498'
- 9) Approximate coal seam depths: 780'
- 10) Does land contain coal seams tributary to active mine? Yes _____ No X
- 11) Proposed Well Work: Drill and stimulate production well in Fifth Sand, well to be drilled directionally N 20° E 400'

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight Per Ft.	For Drilling		Left in Well
Conductor						
Fresh Water	7"	LS	17#	855'	855'	Cement to surface
Coal						
Intermediate						
Production	4 1/2"	J-55	10.5#	3400'	3400'	150 Sacks, CTS
Tubing						
Liners						

*SDW
6/27/2013*

Packers: Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only

- Fee(s) Paid
- Well Work Permit
- Reclamation Fund
- WPCP
- Plat
- WW-9
- WW-2B
- Bond
- Agent

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Office of Oil & Gas

(Type)

11/1 2013

08/09/2013

1) Date: June 20, 2013
2) Operator's Well Number
W. B. Carpenter No. 237
3) API Well No: 47 - 033 -
State County Permit

3305780

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CK# 2273
\$650.00

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Earl & Belva Junkins ✓
Address RR 5, Box 1226
Salem, WV 26426
 - (b) Name Edgar Lee Myers ✓
Address RR 4, Box 532
Salem, WV 26426
 - (c) Name Brian Huffman ✓
Address RR 4, Box 530
Salem, WV 26426
- 5) (a) Coal Operator:
Name NA
Address _____
- (b) Coal Owner(s) with Declaration
Name NA
Address _____
- (c) Coal Lessee with Declaration ✓
Name Wolf Run Mining
Address 2708 Cranberry Square
Morgantown, WV 26505
- 6) Inspector Sam Ward
Address P. O. Box 2327
Buckhannon, WV 26201
Telephone (304) - 389-7583

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

- _____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
- X _____ Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

Received
Office of Oil & Gas

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 on the above-named parties, by:

- _____ Personal Service (Affidavit attached)
- X _____ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

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, 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 HG Energy, LLC

By: Diane C White *Diane White*

Its: Accountant

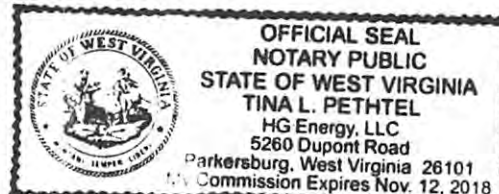
Address 5260 Dupont Road
Parkersburg, WV 26101

Telephone (304) 420-1119

Subscribed and sworn before me this 20 day of June 2013

Tina L. Pethtel Notary Public

My commission expires Nov. 12, 2018



08/09/2013

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
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:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
W. B. Carpenter, et ux	South Penn Oil Company	1/8	92/40

Merger and Conveyance dated July 3, 1963, from South Penn Oil Company to Penzoil Company, Kanawha County, Book 153, Page 35,

Assignment, Conveyance and Bill of Sale dated December 28, 1998, from Penzoil Company to Pennz Energy Exploration and Production, Wetzel County, Book 12, Page 177.

Certificate of Merger filed with the WV Secretary of State, December 31, 1999, whereby Pennz Energy Exploration and Production, successor in interest to; to Penzoil Company, merged with Devon Energy Production Company, LP, Wetzel County, Book 12, Page 278.

Deed, Assignment and Bill of Sale dated June 1, 2000, from Devon Energy Production Company, LP to East Resources, Inc., recorded in Wetzel County, Book 370, Page 580.

Assignment, Conveyance and Bill of Sale, dated January 1, 2011, from East Resources, Inc., to HG Energy, LLC, Wetzel County, Book 118A, Page 253.

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including the use of access roads, pipelines and utilities.

**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:

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Office of Oil & Gas

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

Well Operator: HG Energy, LLC
By: Diane C. White *Diane C White*
Its: Accountant

08/09/2013

West Virginia Division 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.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

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

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Contractor Name Sturm Environmental Services
 Well operator's private laboratory

Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101
Telephone 304-420-1119

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Office of Oil & Gas

2013

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 indicates such.

No known Water Supply Sources are located within 1000' of proposed well but many water sources have been tested in conjunction with this Wolf Summit drilling program

Earl & Belva Junkins RR 5, Box 1226 Salem, WV 26426	Brian Huffman RR 4, Box 530 Salem, WV 26426	Susan Junkins RR 2, Box 119A Bristol, WV 26426	Gary Winters & Ruth Kennedy RR 2, Box 119 Bristol, WV 26426	Claude & Jean Tetric RR 2, Box 40 Bristol, WV 26426
John & Brenda Scotchie RR 2, Box 42 Salem, WV 26426	Linda Smith 9046 Westville Drive Camden Wyoming, DE 19934	Dennis McAvey RR 2, Box 41 Bristol, WV 26332	Mazza Donna Devericks RR 2, Box 80 Bristol, WV 26332	

Additional testing authorized on 5/13/2013:

Oville Myers RR 4, Box 531 Salem, WV 26426	Daniel Southern RR 4, Box 540 Salem, WV 26426	Edgar Lee Myers RR 4, Box 532 Salem, WV 26426	Edith Jean Myers RR 4, Box 534 Salem, WV 26426
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3305780

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 HG Energy, LLC OP Code 494497948
Watershed Branch of Lick Run Quadrangle Salem 7.5' 596
Elevation 1390' County Harrison 33 District Ten Mile 0A

Description of anticipated Pit Waste: Fluids encountered in drilling shallow well.

Do you anticipate more than 5,000 bbls of water to complete the proposed well work? Yes No X

Will a synthetic liner be used in pit? Yes If so, what mil.? 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)

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6/27/2013

Drilling medium anticipated for this well? Air, fresh water, oil based, etc. Air, Fresh Water

- If oilbased, what type? Synthetic, petroleum, etc.

Additives to be used? 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?

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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Office of Oil & Gas

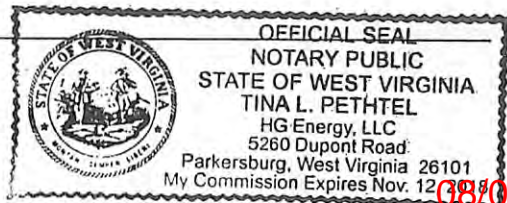
JUL 11 2013

Company Official Signature Diane C White
Company Official (Typed Name) Diane C. White
Company Official Title Accountant

Subscribed and sworn before me this 20 day of June 2013

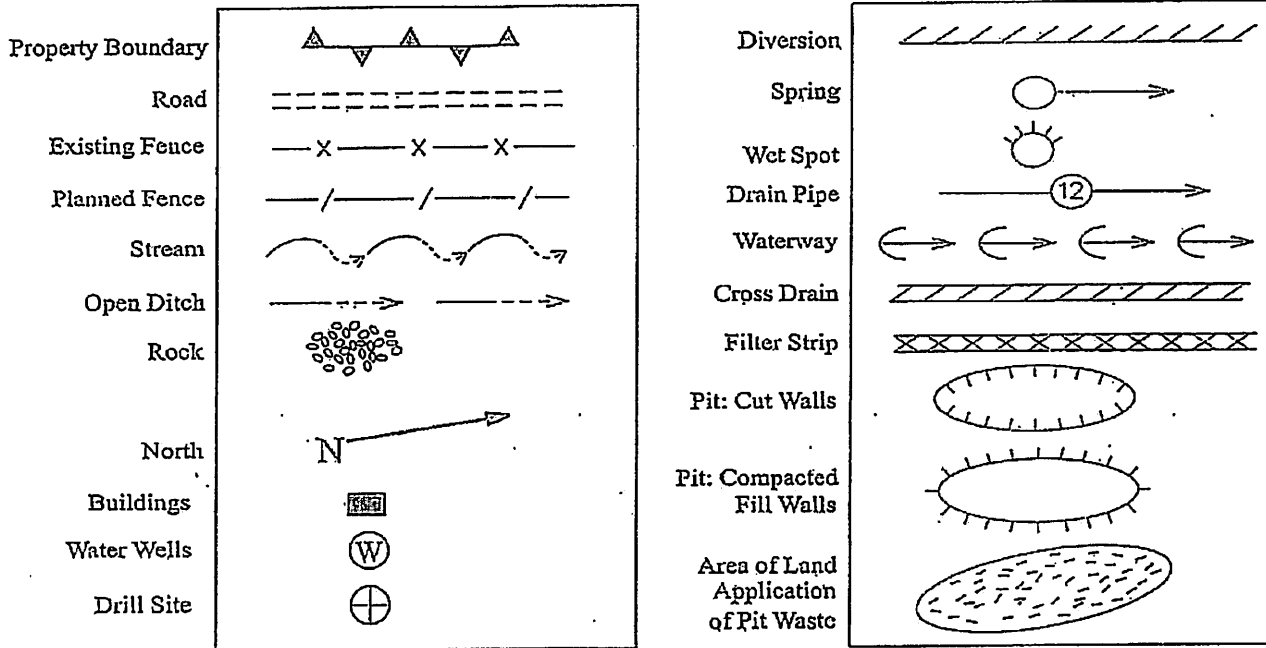
Tina L Pethtel Notary Public

My commission expires Nov 18, 2018
Form WW-9



08/09/2013

Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 1.0 Ac. Prevegetation pH _____

Area II
Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5
 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)
 Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	

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JUL - 1 2013

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

Office of Oil and Gas
 WV Dept. of Environmental Protection

Plan approved by: S. L. D. Ward II

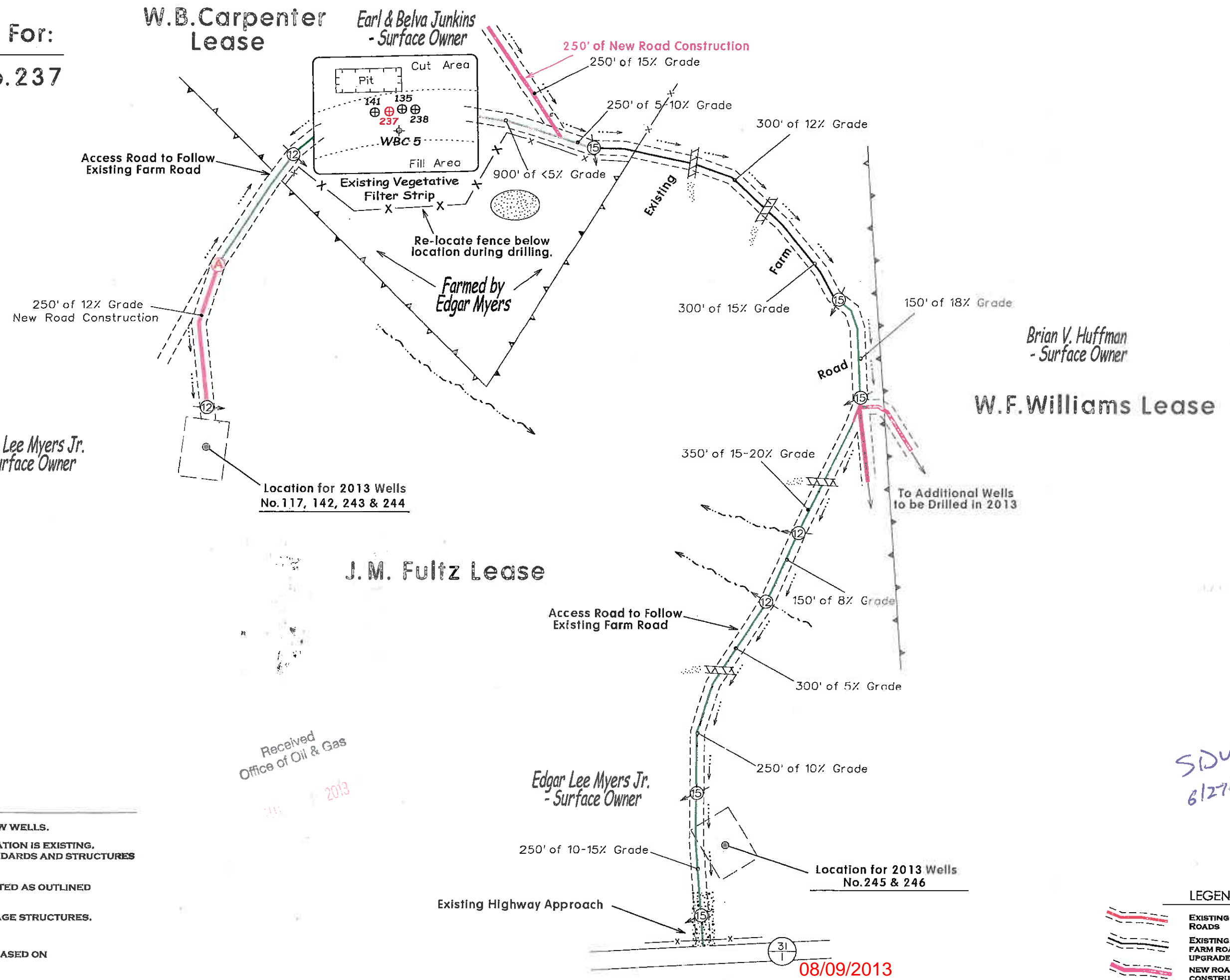
Title: Oil & Gas Inspector Date: 6/27/2013

Field Reviewed? X Yes No

Reclamation Plan For: W.B. Carpenter No.237

W.B. Carpenter Lease
Earl & Belva Junkins - Surface Owner

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



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6/27/2013

Notes:

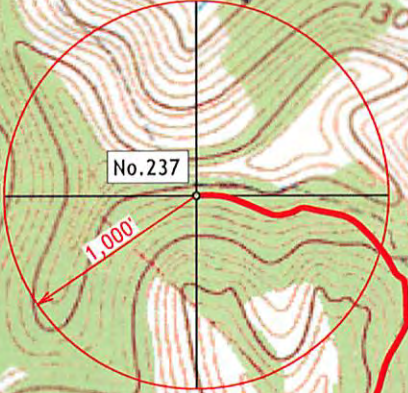
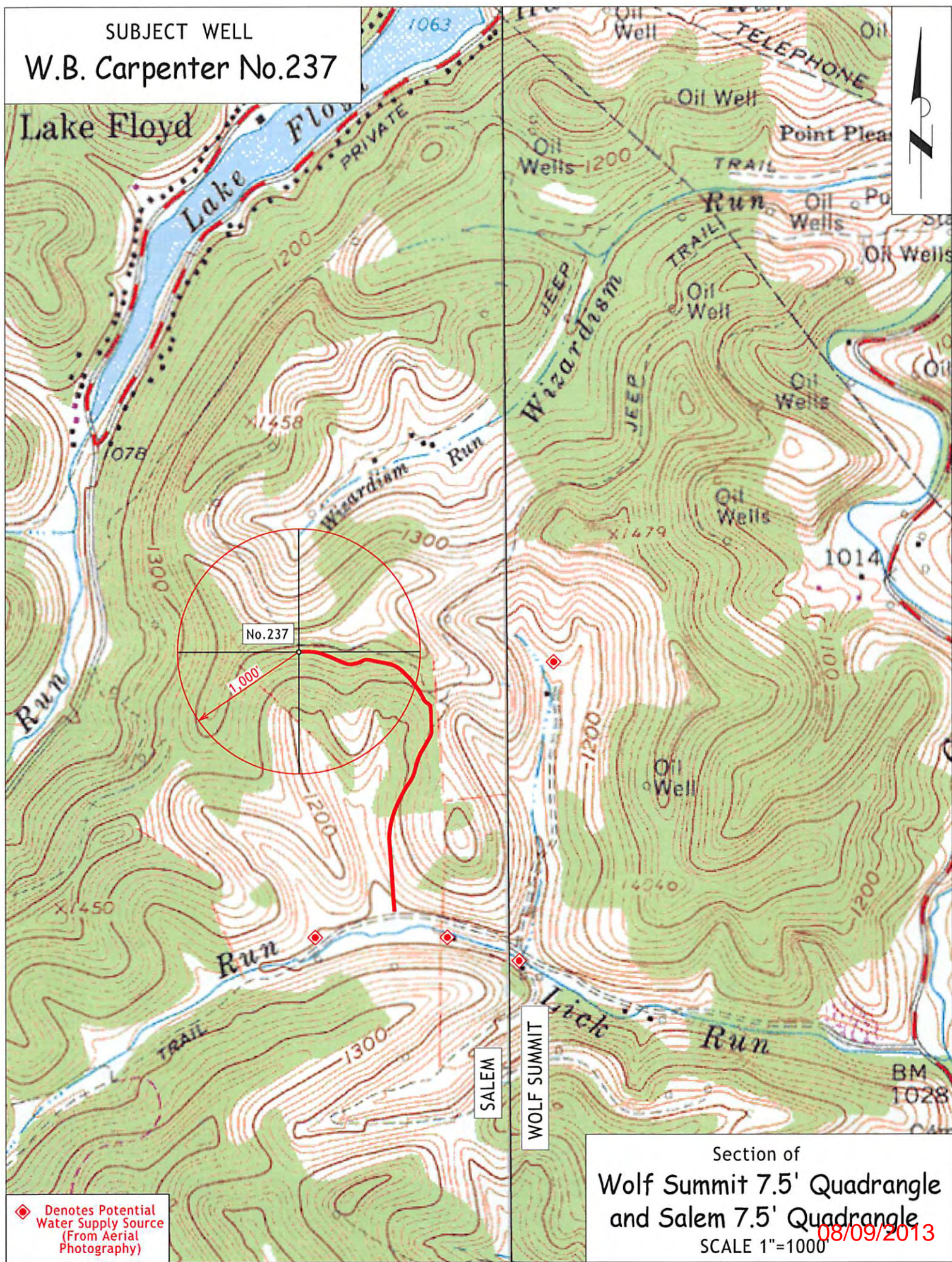
- REQUESTED PERMIT IS FOR DRILLING OF NEW WELLS.
- ACCESS ROAD FROM Co. Rd. 31/1 TO LOCATION IS EXISTING. ROAD WILL BE UPGRADED TO WVDEP STANDARDS AND STRUCTURES INSTALLED AS SHOWN.
- ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
- MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
- ALL ROAD GRADES <5% EXCEPT AS NOTED.
- LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
- DRAWING NOT TO SCALE.

LEGEND

	EXISTING WATERFLOOD ROADS
	EXISTING LEASE OR FARM ROADS TO BE UPGRADED.
	NEW ROADS TO BE CONSTRUCTED

08/09/2013

SUBJECT WELL
W.B. Carpenter No.237



◆ Denotes Potential Water Supply Source (From Aerial Photography)

Section of
**Wolf Summit 7.5' Quadrangle
 and Salem 7.5' Quadrangle**
 SCALE 1"=1000' 08/09/2013

(BOTTOM HOLE: LON:-80°30'20.0")

LON:-80°30'21.8"

1715

1 - Well ties and Latitude and Longitude were measured by Topcon HiPer 6A survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).

2 - Surface owners, adjoining information, Lease names, & line mapping obtained from HGE GIS system. No survey was performed to determine lines within the Waterflood Unit-reference: HGE GIS system.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

SURVEY NOTES

UTM Coordinates (Zone 17N-NAD 1983)	
Surface	N-4,347,315m. E-542,622m.
Bottom Hole	N-4,347,430m. E-542,663m.

LOCATION REFERENCES	
UTM 27	
S 25°54' E 34.4' EX: WELL	
N 61°40' E 141.8' 12" WO	
Brg. Direction is prop. well to the ref.	

LAT: 39°17'30"

**MAP OF
H.G. ENERGY, LLC
-WATERFLOOD UNIT-
W.B. CARPENTER 237**

LON: 80°30'00"

6415

LAT:39°16'26.6"

(BOTTOM HOLE: LAT:39°16'30.3")



✕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

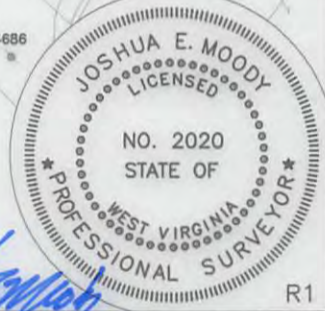
JOB # 13-014
DRAWING # 13LAKEFLOYD FOLDER
SCALE 1" = 1500'
MINIMUM DEGREE OF ACCURACY 1/2500
PROVEN SOURCE OF ELEV. BENCH MARK H-80

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



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

MOODY LAND SURVEYING, LLC
ST. MARYS, WV 26170



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

JOSHUA E. MOODY, P.S. 2020

DATE 4/19/13
OPERATOR'S WELL W.B. CARPENTER #237

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL HORIZONTAL
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 1390' WATERSHED BRANCH OF LICK RUN API WELL # 47-033-05780
DISTRICT TEN MILE COUNTY HARRISON STATE WV COUNTY PERMIT
QUADRANGLE SALEM 7.5'

SURFACE OWNER EARL & BELVA JUNKINS ACREAGE 152.14 ACRES +/-
OIL & GAS ROYALTY OWNER CHARLES A. SADDLER ET AL LEASE ACREAGE 154 ACRES +/-
PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 20° E 400')
PLUG & ABANDON CLEAN OUT & REPLUG
TARGET FORMATION 5TH SAND ESTIMATED DEPTH MD= 3,400'
WELL OPERATOR H.G. ENERGY, LLC DESIGNATED AGENT MIKE KIRSCH
ADDRESS 5260 DuPONT ROAD ADDRESS 5260 DuPONT ROAD
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101

08/09/2013



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

June 20, 2013

Mr. Jeff McLaughlin
WVDEP
Division of Oil & Gas
601 57th Street
Charleston, West Virginia 25304

RE: W. B. Carpenter No. 237
Ten Mile District, Harrison County
West Virginia

Dear Mr. McLaughlin:

Enclosed are the Forms WW-2A, WW-2A (1), WW-2B, WW-9, WW-2(B1), mylar of plat, reclamation plan, topo map and copy of the certified mailing receipt for a permit to drill the above-captioned shallow, producing well. Our check in the amount of \$650 is attached.

If you have any questions regarding this application, please call me at 304-420-1119.

Very truly yours,

Diane White

Diane C. White

Received
Office of Oil & Gas

Enclosures

cc: Edgar Lee Myers - Certified
Brian V. Huffman - Certified
Earl & Belva Junkins - Certified
Wolf Run Mining Company - Certified
Sam Ward - Inspector

08/09/2013