



**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

March 17, 2014

**WELL WORK PERMIT**  
**Rework-Secondary Recovery**

This permit, API Well Number: 47-3303962, 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: E. FLETCHER NO. 15  
Farm Name: FLETCHER, RICHARD & ELIZAB  
**API Well Number: 47-3303962**  
**Permit Type: Rework-Secondary Recovery**  
Date Issued: 03/17/2014

# 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 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.
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.



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

Well Operator's Report of Well Work

Farm name: FLETCHER, GERTRUDE ET VIR Operator Well No.: E. FLETCHER #15

LOCATION: Elevation: 1,319.00 Quadrangle: WOLF SUMMIT

District: TENMILE County: HARRISON  
Latitude: 9250 Feet South of 39 Deg. 20Min. Sec.  
Longitude 4000 Feet West of 80 Deg. 27 Min. 30 Sec.

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

Agent: JAMES A. CREWS

Inspector: TIM BENNETT  
Permit Issued: 09/01/93  
Well work Commenced: 10/12/93  
Well work Completed: 06/23/94  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 3078'  
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 575' & 1438'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			To surface
8-5/8	673.15	673.15	205 sks.
4-1/2	3028.75	3028.75	410 sks.

OPEN FLOW DATA

WATER INJECTION WELL

Producing formation Fifth Sand Pay zone depth (ft) 2935'-3953'  
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: PENNZOIL PRODUCTS COMPANY

By: *[Signature]*  
Date: 7/8/94

33 039624 R

TREATMENT

Perforated: Fifth Sand with 12 holes, 4 per foot, 2942' - 2944'.  
Treated with 300 gal. 15% HCL, 202 bbls. gelled water  
and 5000# 20/40 sand.

WELL LOG

Sand & Shale	0 - 575
Coal	575 - 581
Sand & Shale	581 - 1312
Sand	1312 - 1395
Shale	1395 - 1438
Coal	1438 - 1440
Sand & Shale	1440 - 1836
Maxton	1836 - 1919
Shale	1919 - 1938
Big Lime	1938 - 1980
Shale	1980 - 2040
Big Injun	2040 - 2079
Shale	2079 - 2506
Fifty Foot	2506 - 2533
Sand & Shale	2533 - 2708
Gordon	2708 - 2763
Shale	2763 - 2935
Fifth Sand	2935 - 2953
T.D.	3078



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 JUN 16 2014  
 EF15

Sent To: Richard & Elizabeth Fletcher  
 Street, Apt. No., or PO Box No.: 4 Nancy's Way  
 City, State, ZIP+4: Newark, DE 19711

PS Form 3800, August 2006 See Reverse for Instructions

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Total Postage & Fees	\$ 6.97

Postmark Here  
 JUN 16 2014  
 EF15

Sent To: American Mountaineer Energy, Inc  
 Street, Apt. No., or PO Box No.: Rt. 2, Box 406  
 City, State, ZIP+4: Clarksburg WV 26505

PS Form 3800, August 2006 See Reverse for Instructions

X

33039625R

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Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 7.40</b>

<i>Sent to</i>	
American Mountaineer Energy	
<i>Street, Apt. No., or PO Box No.</i>	
Rt 2, Box 406	
<i>City, State, ZIP+4</i>	
Clarksburg WV 26301	

PS Form 3800, August 2005 See Reverse for Instructions



**Received**

FEB 26 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

03/21/2014



WW-2B1

Well No. Elizabeth Fletcher No. 15

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.

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

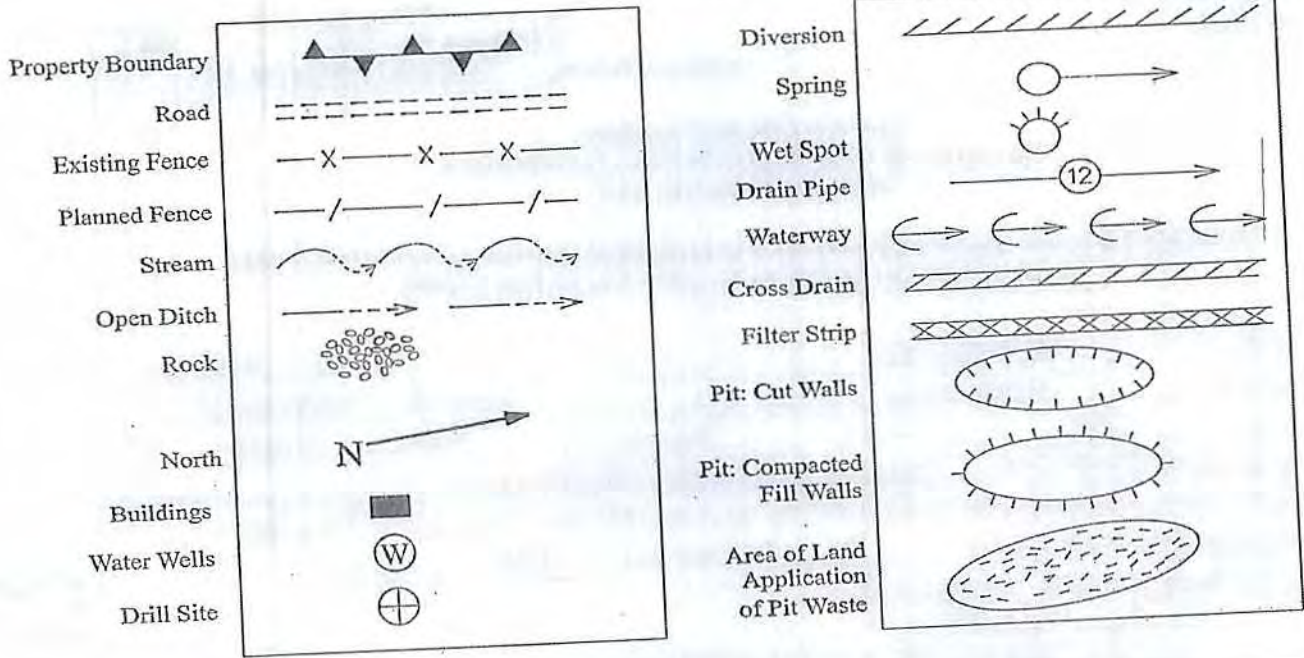
Well Operator HG Energy, LLC  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone 304-420-1119

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.

No known Water Supply Sources are located within 2000' of proposed well.



Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.5 Ac. Prevegetation pH \_\_\_\_\_  
Area II Approx. 0.3 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>		<u>Area II (Road)</u>	
Seed Type	Lbs/Ac.	Seed Type	Lbs/Ac.
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  
 Photocopied section of involved 7.5' topographic sheet.

Plan approved by: [Signature]  
 Comments: Seed & mulch all disturbed areas & upgrade E&P as necessary  
 Title: Oil & Gas Inspector Date: 7/28/2014

Field Reviewed? (X) Yes ( ) No

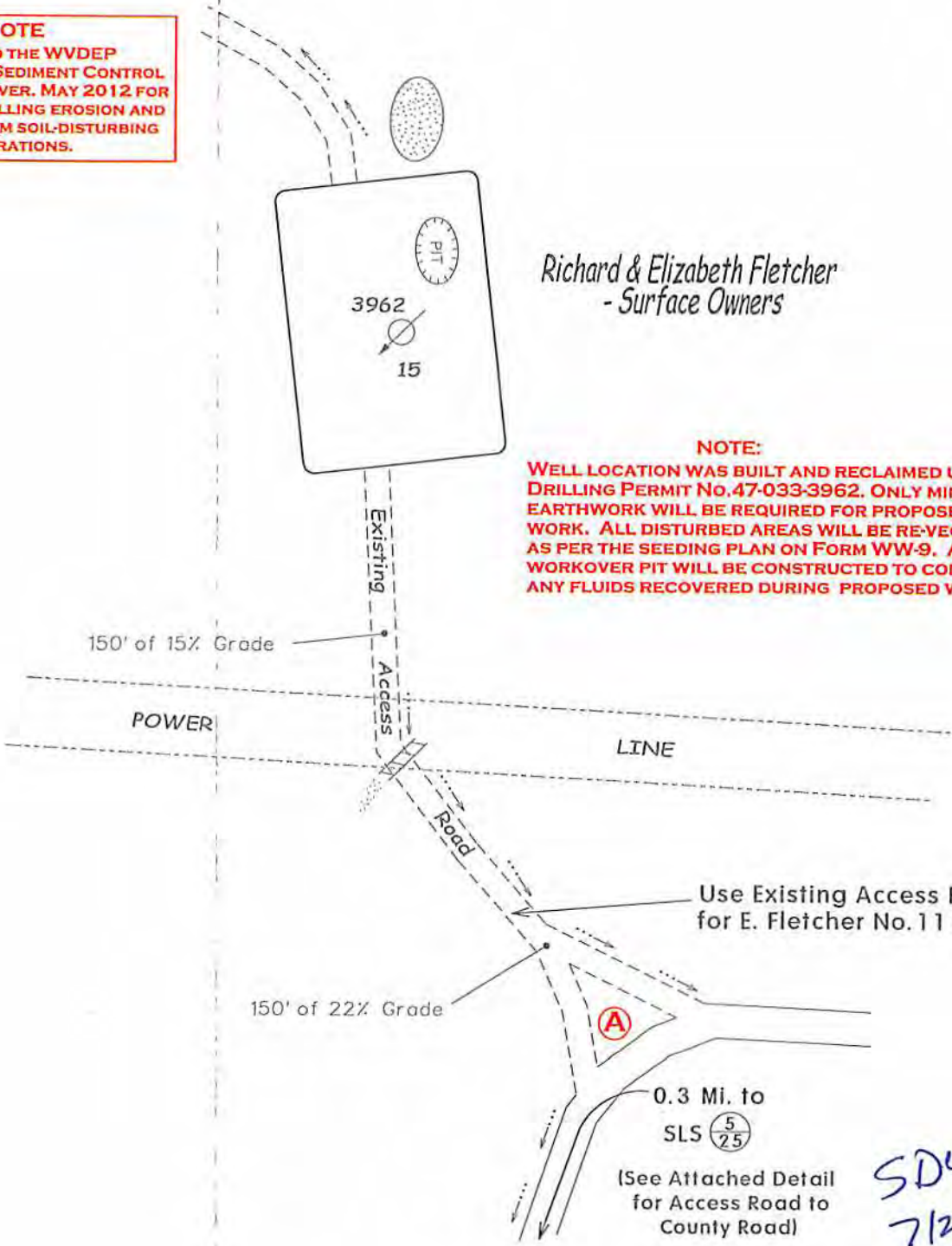
# Reclamation Plan For: Elizabeth Fletcher No. 15

47-033-3962

## Frac Permit 1/8/2014



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



*Richard & Elizabeth Fletcher  
- Surface Owners*

**NOTE:**  
 WELL LOCATION WAS BUILT AND RECLAIMED UNDER  
 DRILLING PERMIT No. 47-033-3962. ONLY MINIMAL  
 EARTHWORK WILL BE REQUIRED FOR PROPOSED WELL  
 WORK. ALL DISTURBED AREAS WILL BE RE-VEGETATED  
 AS PER THE SEEDING PLAN ON FORM WW-9. A SMALL  
 WORKOVER PIT WILL BE CONSTRUCTED TO CONTAIN  
 ANY FLUIDS RECOVERED DURING PROPOSED WELL WORK.

*SDW  
7/25/2014*

### Notes:

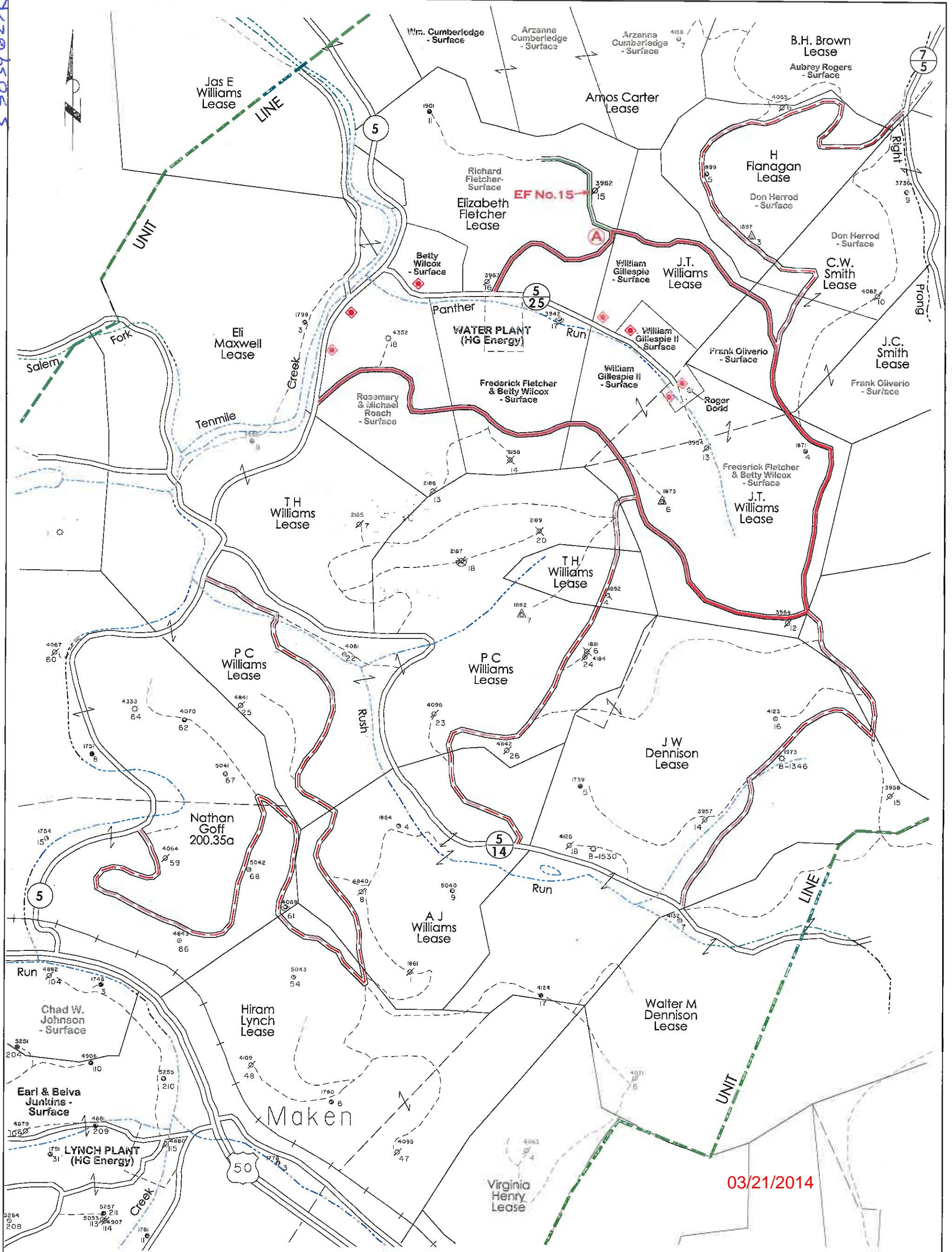
- Requested permit is for re-frac of existing well.
- Location and access roads from Co. Rd. 5/25 to the well are existing. Structures shown will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Sediment barriers and drainage structures will be maintained.
- All road grades <5% except as noted.

03/21/2014

- Existing Culvert

Note: Drawing not to Scale

33039628P



**WOLF SUMMIT WATERFLOOD**  
 Harrison County, W.Va.  
**RECLAMATION PLAN**  
**SHOWING WOLF SUMMIT**  
**EXISTING ROAD SYSTEM**  
**TO BE USED FOR 2014**  
**WORKOVER PROGRAM**

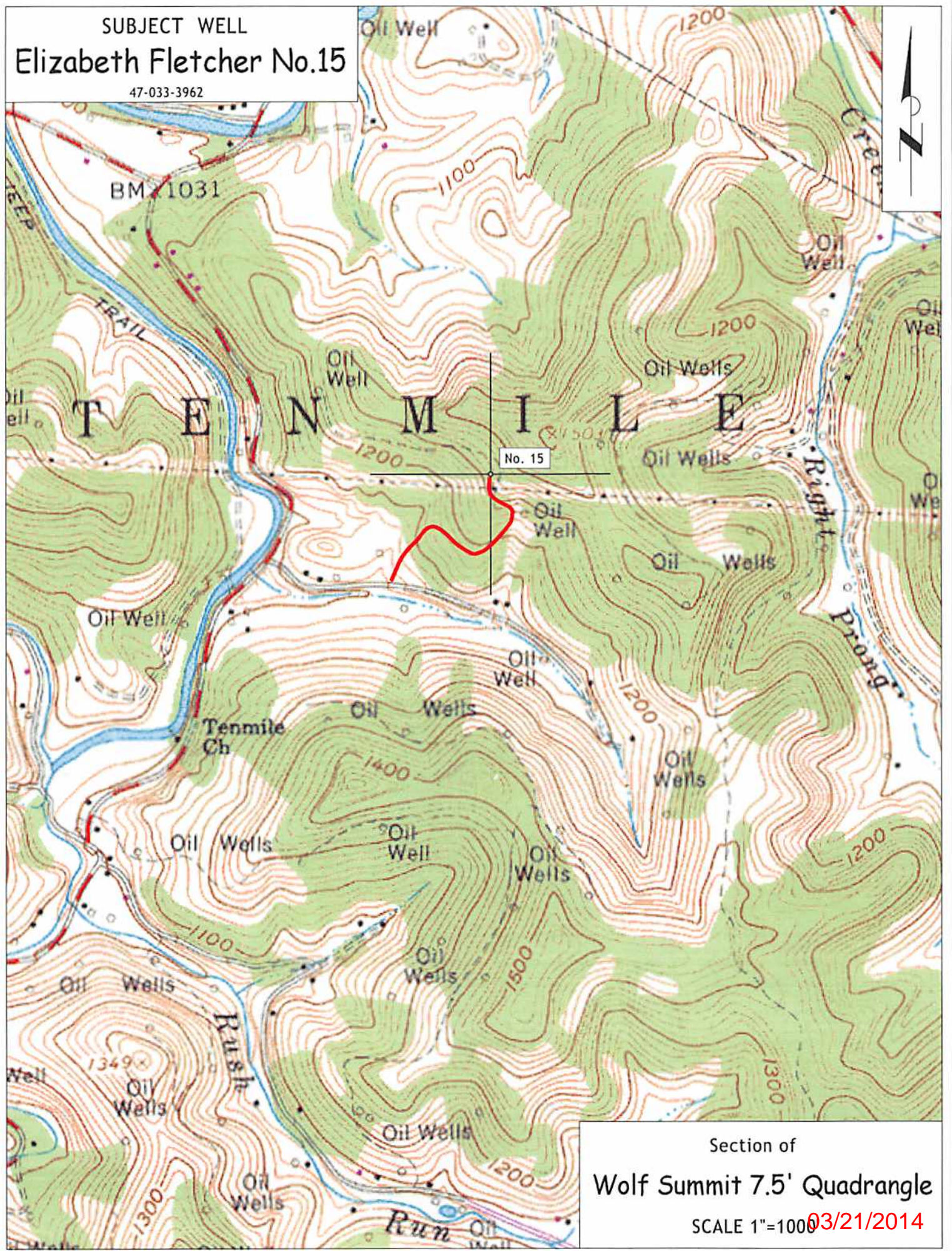
**NOTES**

1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING EROSION AND SEDIMENTATION FROM ALL SOIL-DISTURBING OPERATIONS.
2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT (A) TO DRILL SITE LOCATION.
3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG FROM 2003 - 2009 (AS SHOWN). SEE PERMITS ON FILE FOR MORE DETAIL.

**LEGEND**

- EXISTING WATERFLOOD ROADS TO BE USED.
- OTHER EXISTING MAIN WATERFLOOD ROADS (POSSIBLE ACCESS).
- EXISTING LEASE OR FARM ROADS TO BE UPGRADED.
- NEW ROADS TO BE CONSTRUCTED.
- EF No. 19
- LOCATION FOR PROPOSED WELLS
- POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED

SUBJECT WELL  
Elizabeth Fletcher No.15  
47-033-3962



Section of  
Wolf Summit 7.5' Quadrangle  
SCALE 1"=1000' 03/21/2014





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

33039625 R  
Check # 2521  
\$ 650.00

January 14, 2014

Mr. Jeff McLaughlin  
Division of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, West Virginia 25304

RE: Elizabeth Fletcher No. 15 (47-033-3962)  
Tenmile District, Harrison County  
West Virginia

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

*Diane C White*

Diane C. White

Enclosures

cc: Richard & Elizabeth Fletcher – Certified  
American Mountaineer Energy, Inc. - Certified  
Sam Ward - Inspector

RECEIVED  
Office of Oil and Gas

FEB 24 2014

WV DEPARTMENT OF  
Environmental Protection

03/21/2014