



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 17, 2014

WELL WORK PERMIT
Rework-Secondary Recovery

This permit, API Well Number: 47-3304930, 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 100
Farm Name: JUNKINS, EARL & BELVA
API Well Number: 47-3304930
Permit Type: Rework-Secondary Recovery
Date Issued: 10/17/2014

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

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 within 30 days of commencement of drilling.

FORM WW-3 (B)
1/12



1) Date: 09/03/2014
2) Operator's Well No. W. B. Carpenter No. 100
3) API Well No.: 47 - Harrison - 04930
State County Permit
4) UIC Permit No. UIC2R03301AP

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: 1428' Watershed: Wizardism Run
District: Ten Mile County Harrison Quadrangle Salem 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 Sam Ward Name To Be Determined
Address P. O. Box 2327 Address _____
Buckhannon, WV 26201

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 Fifth Sand Depth 3111' Feet (top) to 3122' Feet (bottom)
13) Estimated Depth of Completed Well, (or actual depth of existing well): 3,320' Feet
14) Approximate water strata depths: Fresh 50' Feet Salt 1480' Feet
15) Approximate coal seam depths: 690'
16) Is coal being mined in the area? Yes _____ No X
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

SPW
9/15/2014

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 ST&C | 17# | X | | 740' | 740' | CTS | |
| Coal | | | | | | | | | Sizes |
| Intermediate | | | | | | | | | 2.375"x4.5" |
| Production | 4 1/2" | J-55 | 10.5# | X | | 3253' | 3253' | 150 sks | Depths set |
| Tubing | 2 3/8" | J-55 | 4.6# | X | | 3000' | 3000' | | 2900" |
| Liners | | | | | | | | | Perforations |
| | | | | | | | | | Top Bottom |

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SEP 24 2014

24) APPLICANT'S OPERATING RIGHTS were acquired from W. B. Carpenter, et ux
by deed _____ / lease X / other contract _____ / dated 08/17/1896 of record in the
Harrison County Clerk's office in _____ Book P2 Page 40

WV Department of Environmental Protection

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

COPY

Well Operator's Report of Well Work

Farm name: JUNKINS, EARL & BELVA Operator Well No.: CARPENTER 100

LOCATION: Elevation: 1,428' Quadrangle: SALEM 7.5'

District: TEN MILE County: HARRISON
Latitude: 3,950 Feet south of 39 Deg 17 Min 30 Sec.
Longitude: 1,500 Feet west of 80 Deg 30 Min 00 Sec.

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

Agent: PHILIP S. ONDRUSEK

Inspector: TIM BENNETT

Permit Issued: 06/04/09

Well work Commenced: 06/25/09

Well work Completed: 06/25/09

Verbal plugging permission granted on:

Rotary X Cable Rig

Total Depth (feet) 3320'

Fresh water depths (ft)

Salt water depths (ft)

Is coal being mined in area (Y/N) N

Coal Depths (ft): NA

Table with 4 columns: Casing/tubing Size, Used in Drilling, Left in Well, Cement Fill Up Cu. Ft.
Row 1: 7", 740', 740', 185 sks
Row 2: 4 1/2", 3252.8', 3252.8', 150 sks

OPEN FLOW DATA * WATERFLOOD INJECTOR

Producing formation Fifth Sand Pay zone depth (ft) 3111'-3122'
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

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Office of Oil and Gas

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. WV Department of Environmental Protection
By: [Signature]
Date: 8/23/09

10/17/2014



Treatment :

Treated perms. (3112'-3121') via 4 1/2" casing w/ 167 bbls linear gel and 1000 # 30/50 sand.

Well Log :

| | | |
|------|------|----------------|
| 0 | 388 | Sand and Shale |
| 388 | 420 | Sand |
| 420 | 504 | Shale |
| 504 | 656 | Sand and Shale |
| 656 | 766 | Shale |
| 766 | 790 | Sand |
| 790 | 1111 | Shale |
| 1111 | 1130 | Sand |
| 1130 | 1151 | Shale |
| 1151 | 1168 | Sand |
| 1168 | 1484 | Shale |
| 1484 | 1588 | Sand |
| 1588 | 1652 | Shale |
| 1652 | 1670 | Sand |
| 1670 | 2004 | Shale |
| 2004 | 2034 | Sand |
| 2034 | 2094 | Shale |
| 2094 | 2116 | Sand |
| 2116 | 2140 | Shale |
| 2140 | 2224 | Big Lime |
| 2224 | 2280 | Big Injun |
| 2280 | 2696 | Shale |
| 2696 | 2708 | Sand |
| 2708 | 2790 | Shale |
| 2790 | 2940 | Sand |
| 2940 | 3018 | Shale |
| 3018 | 3021 | Sand |
| 3021 | 3111 | Shale |
| 3111 | 3122 | Fifth Sand |
| 3122 | 3320 | Shale |
| 3320 | | TD |

FORM WW-3 (A)
1/12



1) Date: 9/03/2014
2) Operator's Well No. WB Carpenter 100
3) API Well No.: 47 - 033 - 04930
State County Permit
4) UIC Permit No. UIC2R03301AP

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

5) Surface Owner(S) To Be Served (a) Name Belva & Earl Junkins Address 515 Still House Road Salem, WV 26426 (b) Name Address (c) Name Address
6) Inspector Address Telephone
7) (a) Coal Operator Name Wolf Run Mining Company Address 2708 Cranberry Square Morgantown, WV 26505
7) (b) Coal Owner(S) With Declaration Of Record Name Address
7) (c) Coal Lessee with Declaration Of Record Name Address

- TO THE PERSONS NAMED ABOVE: You should have received this form and the following documents
- (1) The Application For A Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
 - (2) The plat (surveyor's map) showing the well location on Form WW-6; and
 - (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is 20 14

THE REASON YOU HAVE RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION [(FORM WW-3(B))] DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE 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 Well Work Permit with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to a well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan 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 the mailing or delivery to the Chief.

RECEIVED

The person signing this document shall make the following certification: Office of Oil and Gas

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document 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
Address 5260 Dupont Road Parkersburg, WV 26101
By: Diane White
Its: Agent
Signature: Diane White

West Virginia Department of Environmental Protection

3304930WS

| SENDER: COMPLETE THIS SECTION | COMPLETE THIS SECTION ON DELIVERY | |
|--|--|--|
| <ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. | A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee | |
| 1. Article Addressed to: Belva & Earl Jenkins 515 Still House Road Salem WV 26426 | B. Received by (Printed Name) B. Jenkins | C. Date of Delivery 9/8 |
| 2. Article Number <small>(Transfer from service label)</small> | D. Is delivery address different from item 1? If YES, enter delivery address below: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| PS Form 3811, February 2004 | 3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D. | 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes |
| WBC 100 | | |
| 7012 3460 0002 6850 6057 | | |
| Domestic Return Receipt 102595-02-M-1540 | | |

Received

SEP 25 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

10/17/2014

3304930WS

7012 3460 0002 6850 6064

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| Certified Fee | 3.30 |
| Return Receipt Fee (Endorsement Required) | 2.70 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 7.61 |

SEP - 4 2014
Postmark Here

WBC 100

Sent To: Wolf Run Mining Company
 Street, Apt. No., or PO Box No.: 2708 Cranberry Square
 City, State, ZIP+4: Morgantown WV 26505

PS Form 3800, August 2006 See Reverse for Instructions

7012 3460 0002 6850 6057

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| Postage | \$ 1.61 |
| Certified Fee | 3.30 |
| Return Receipt Fee (Endorsement Required) | 2.70 |
| Restricted Delivery Fee (Endorsement Required) | |
| Total Postage & Fees | \$ 7.61 |

SEP - 4 2014
Postmark Here

WBC 100

Sent To: Belva & Earl Carpenter
 Street, Apt. No., or PO Box No.: 515 Still House Road
 City, State, ZIP+4: Salem WV 26426

PS Form 3800, August 2006 See Reverse for Instructions

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 Office of Oil and Gas
 SEP 24 2014
 WV Department of
 Environmental Protection

10/17/2014

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 Wizardism Run Quadrangle Salem 7.5'

Elevation 1428' County Harrison District Ten Mile

Description of anticipated Pit Waste: Fluids encountered in stimulating injection well

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

Will a synthetic liner be used in the 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)
04930 Other (Explain _____)

*SDW
9/15/2014*

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air, freshwater

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

Additives to be used? Water, soap, KCl

Will closed loop system be used? _____

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.

Company Official Signature Diane White

Company Official (Typed Name) Diane White

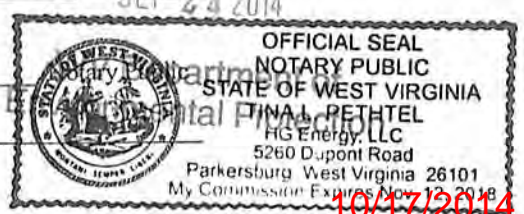
Company Official Title Accountant

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Office of Oil and Gas

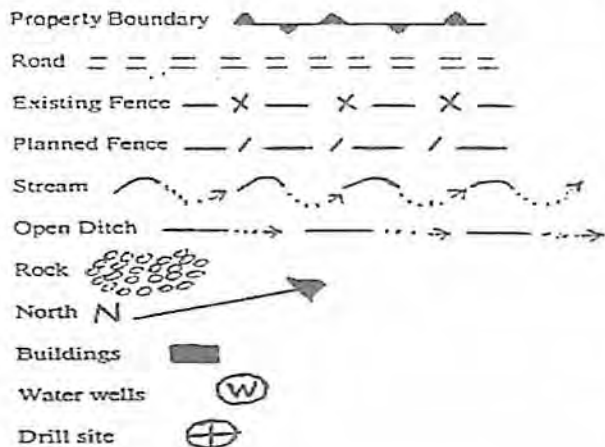
Subscribed and sworn before me this 3rd day of September, 2014

[Signature]

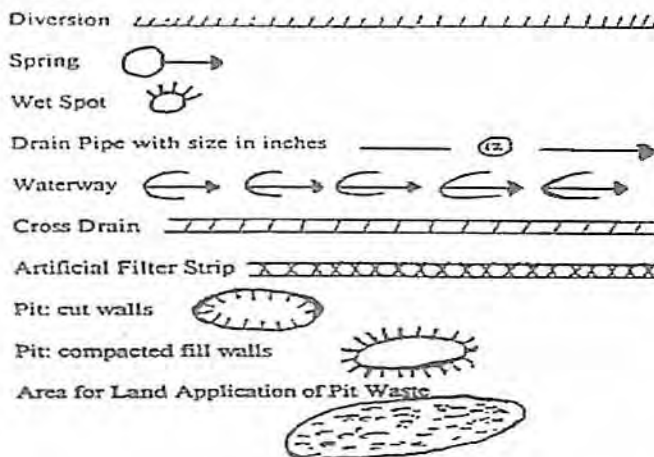
My commission expires Nov 18, 2018



10/17/2014



LEGEND



Proposed Revegetation Treatment: Acres Disturbed Approx .5 Prevegetation pH _____

Lime 2 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

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

| Seed Type | Area II | lbs/acre |
|---------------|---------|----------|
| Tall Fescue | | 40 |
| 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: S. L. Dumas

Comments: Preseed & mulch all disturbed areas as soon as reasonably possible & upgrade EIS as necessary

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Office of Oil and Gas

SEP 24 2014

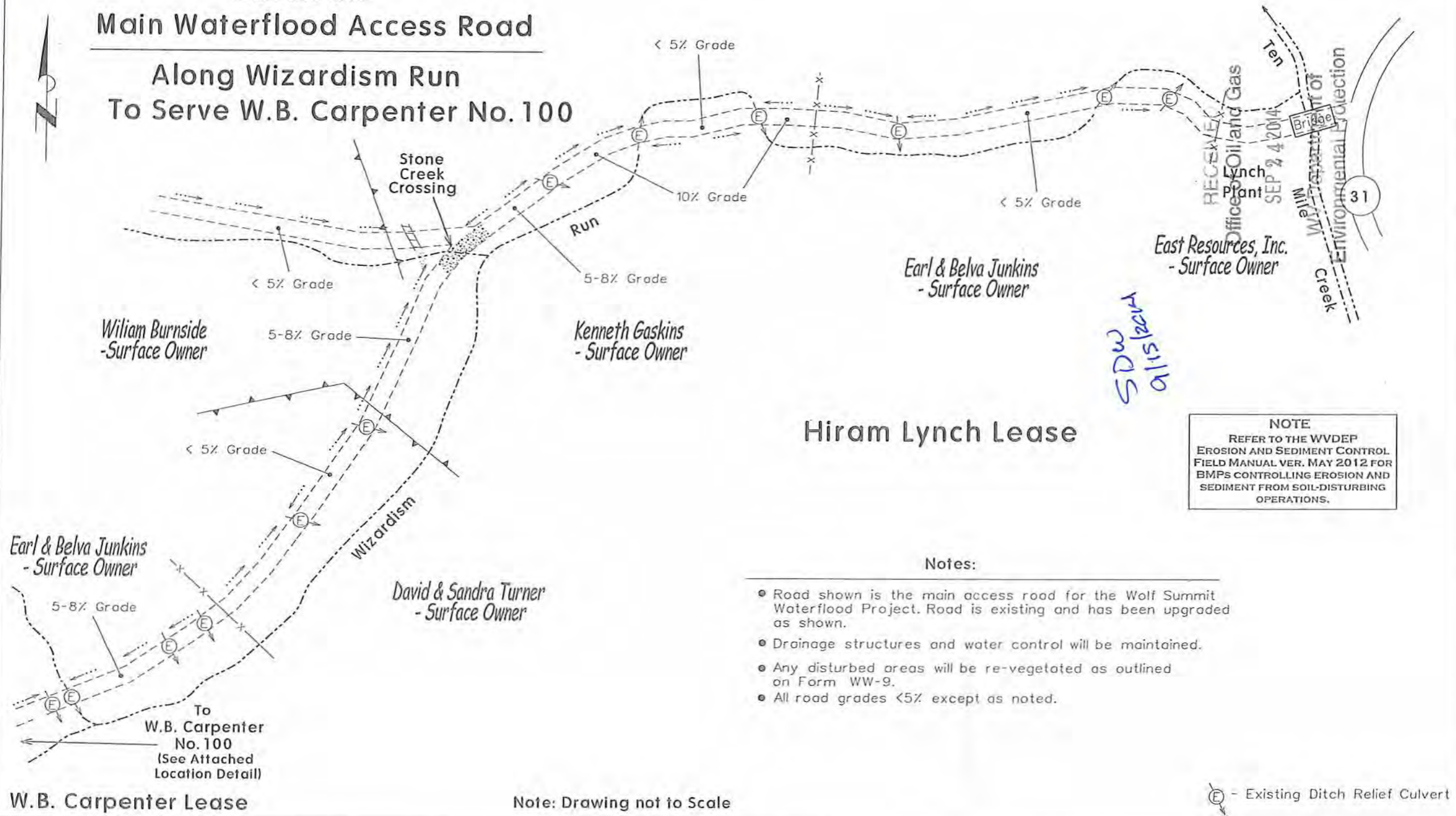
Title Oil & Gas Inspector Date: 9/15/2014

Field Reviewed? _____ Yes (X) No

WV Department of Environmental Protection

3304730WS

Detail of: Main Waterflood Access Road Along Wizardism Run To Serve W.B. Carpenter No. 100



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

Notes:

- Road shown is the main access road for the Wolf Summit Waterflood Project. Road is existing and has been upgraded as shown.
- Drainage structures and water control will be maintained.
- Any disturbed areas will be re-vegetated as outlined on Form WW-9.
- All road grades < 5% except as noted.

Note: Drawing not to Scale

ⓔ - Existing Ditch Relief Culvert

W.B. Carpenter Lease

Hiram Lynch Lease

SDW
01/15/2014

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Office of Oil and Gas
Lynch Plant
SEP 24 2014
Mile 31
Environmental Protection Creek

31

William Burnside
- Surface Owner

Kenneth Gaskins
- Surface Owner

Earl & Belva Junkins
- Surface Owner

East Resources, Inc.
- Surface Owner

David & Sandra Turner
- Surface Owner

Earl & Belva Junkins
- Surface Owner

To
W.B. Carpenter
No. 100
(See Attached
Location Detail)

3-20-99/5048

Reclamation Plan For: W.B. Carpenter No. 100

47-033-4930

Earl & Belva Junkins
- Surface Owner

Hiram Lease Lynch
W.B. Carpenter Lease

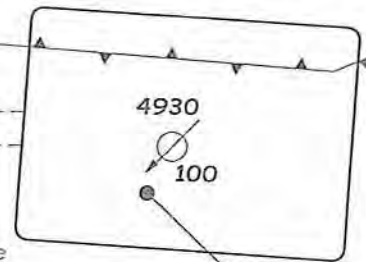
Hiram Lynch Lease
W.B. Carpenter Lease
Office of Oil and Gas
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SEP 2 2 2004

WV Department of Environmental Protection

David & Sandra Turner
- Surface Owner



NOTE:
WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT No.47-033-4930. 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.



Note:
This is an existing well and location. No pit will be required for planned stimulation treatment.
PIT WILL BE USED ACCORDING TO WW-9.
gwm
10/15/14

See Attached Detail
Access Road to
County Road

1.0 Mi. to
SLS (31)

Lake Floyd Club
- Surface Owner

300' of <5% Grade

300' of 5-8% Grade

250' of 25% Grade

Earl & Belva Junkins
- Surface Owner

500' of 5-8% Grade

300' of 15-20% Grade

500' of 20-22% Grade

200' of 25% Grade

200' of 5-8% Grade

Lease

Wizardism

Run

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

To WBC #8

Existing

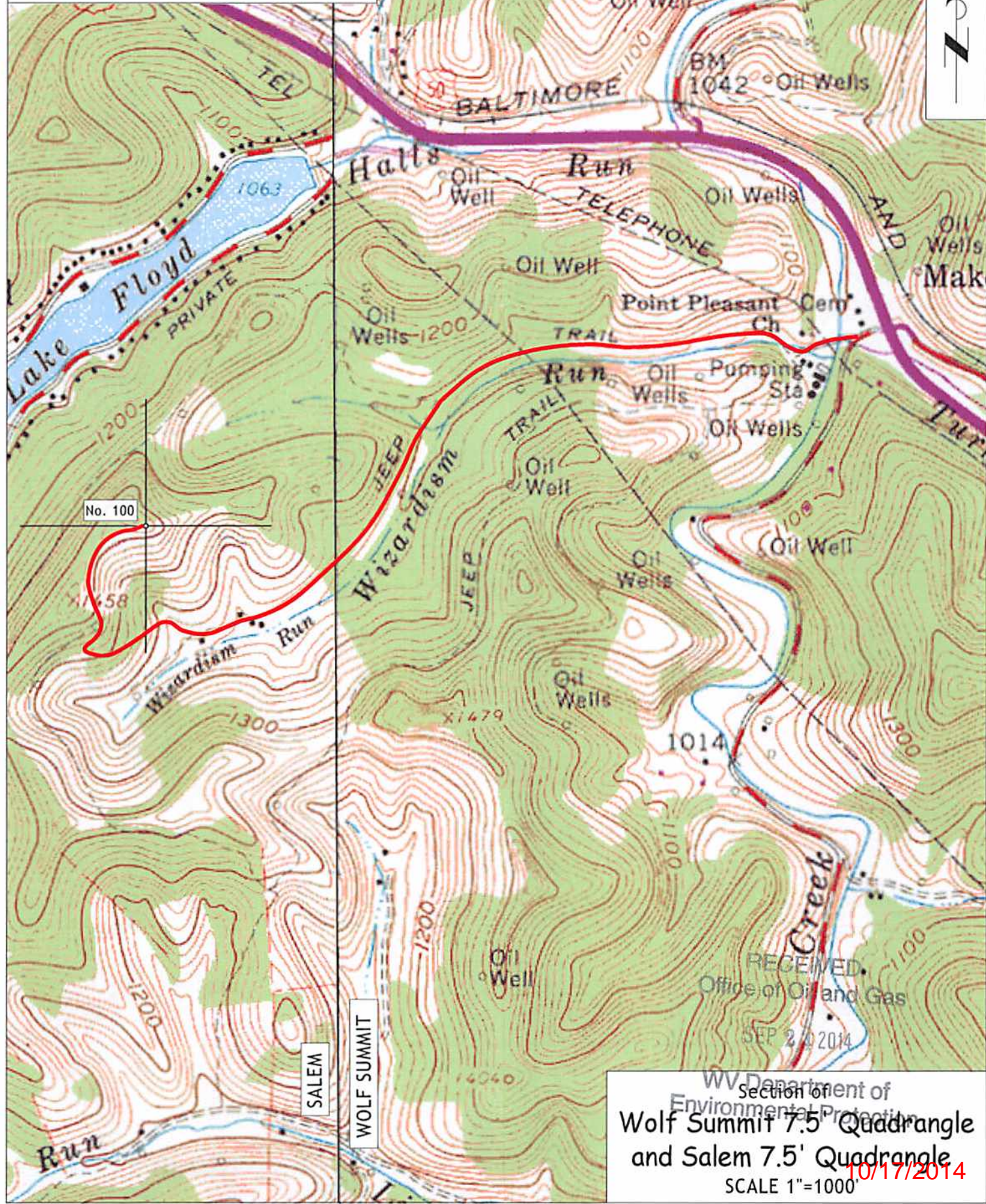
Notes:

- Requested permit is for stimulation of existing well.
- Access road from Co. Rd. 31 to location is existing. Structures will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.

Note: Drawing not to Scale

SUBJECT WELL
W.B. Carpenter No.100

47-033-4930



No. 100

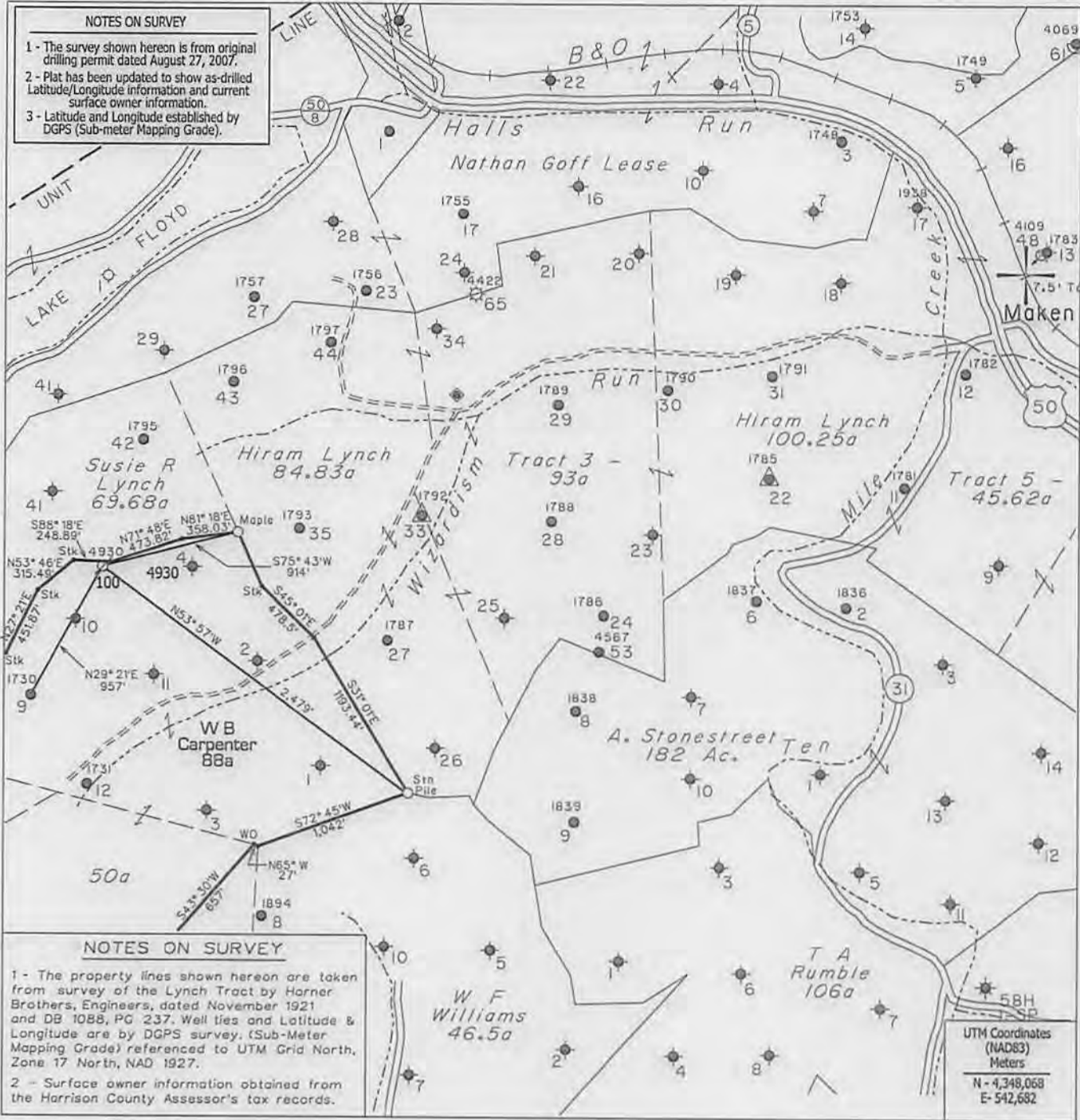
SALEM

WOLF SUMMIT

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Office of Oil and Gas
SEP 24 2014
WV Department of
Environmental Protection
Wolf Summit 7.5' Quadrangle
and Salem 7.5' Quadrangle
SCALE 1"=1000'

10/17/2014

NOTES ON SURVEY
 1 - The survey shown hereon is from original drilling permit dated August 27, 2007.
 2 - Plat has been updated to show as-drilled Latitude/Longitude information and current surface owner information.
 3 - Latitude and Longitude established by DGPS (Sub-meter Mapping Grade).




NOTES ON SURVEY
 1 - The property lines shown hereon are taken from survey of the Lynch Tract by Horner Brothers, Engineers, dated November 1921 and DB 1088, PG 237. Well ties and Latitude & Longitude are by DGPS survey. (Sub-Meter Mapping Grade) referenced to UTM Grid North, Zone 17 North, NAD 1927.
 2 - Surface owner information obtained from the Harrison County Assessor's tax records.

UTM Coordinates (NAD83) Meters
 N - 4,348,068
 E - 542,682

⊕ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

FILE NO. _____
 MAP NO. _____ N _____ S _____ E _____ W _____
 SCALE _____ 1" = 1000'
 MINIMUM DEGREE OF ACCURACY _____ Sub-Meter DGPS
 PROVEN SOURCE OF ELEVATION _____ DGPS Survey

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 MINES.

(SIGNED) 
 TIMOTHY P. ROUSH PS 793



WEST VIRGINIA
 Division of Environmental Protection
 Office of Oil and Gas
 601 57th Street
 Charleston, West Virginia 25304



DATE August 25, 2014
 FARM W.B. Carpenter No.100
 API WELL NO. 47-033-04930 WS

WELL TYPE: OIL _____ GAS _____ LIQUID INJECTION WASTE DISPOSAL _____ CORE _____
 (IF "GAS") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
 LOCATION: ELEVATION 1,428' WATERSHED Wizardism Run
 DISTRICT Ten Mile COUNTY Harrison
 QUADRANGLE Salem 7.5'
 SURFACE OWNER Earl & Belva Junkins ACREAGE 152.71 Ac.
 OIL & GAS ROYALTY OWNER Charles A. Sadler et al. LEASE ACREAGE 154 Ac. 10/17/2014
 LEASE NO. 23886-50
 PROPOSED WORK: DRILL _____ CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Fifth Sand ESTIMATED DEPTH 3,320'
 WELL OPERATOR HG Energy, LLC DESIGNATED AGENT Diane White
 ADDRESS 5260 DuPont Road ADDRESS 5260 DuPont Road
 Parkersburg, WV 26101 Parkersburg, WV 26101



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

3304930WS

CK 2758
650

September 3, 2014

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

RE: W. B. Carpenter No. 100 (47-033-04930)
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 White

Diane C. White

Enclosures

cc: Belva & Earl Junkins – Certified
Wolf Run Mining Company - Certified
Sam Ward - Inspector

RECEIVED
Office of Oil and Gas

SEP 24 2014

WV Department of
Environmental Protection

10/17/2014