



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

June 18, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-8100751, issued to NEW RIVER ENERGY CORPORATION, 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: ROWLAND LAND 23
Farm Name: ROWLAND LAND CO.

API Well Number: 47-8100751

Permit Type: Plugging

Date Issued: 06/18/2015

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.

1) Date March 31, 2015
2) Operator's
Well No. 131381 Rowland B-23
3) API Well No. 47-081 - 00751

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

5) Location: Elevation 1555 Watershed Marsh Fork
District Marsh Fork County Raliegh Quadrangle Pilot Knob 7.5'

6) Well Operator New River Energy Corporation 7) Designated Agent Roger Whited
Address PO Box 1020 Address 8165 Elizabeth Pike
Waynesburg, PA 15370 Elizabeth, WV 26143

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gary Kennedy Name Patchwork Oil & Gas, LLC
Address Po Box 268 Address 8165 Elizabeth Pike
Nimitz, WV 25978 Elizabeth, WV 26143

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

See attached work order and schematic for details.

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

Work order approved by inspector _____ Date _____



IV-35
(Rev 8-81)

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AUG 11 1987

State of West Virginia

Department of Mines

Oil and Gas Division

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date April 6 1987

Operator's

Well No. Rowland 23

Farm Rowland Land Co

API No. 47 - 081 - 0751

WELL OPERATOR'S REPORT

OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1538 Watershed Shumate Creek

District: Marsh Fork County Raleigh Quadrangle Pilot Knob 7.5

COMPANY Allegheny & Western Energy Corp

ADDRESS P.O. Box 2587, Charleston, W.Va., 25329

DESIGNATED AGENT Dennis L. Mann

ADDRESS P.O. Box 2587, Charleston, W.Va., 25329

SURFACE OWNER Rowland Land Co.

ADDRESS 1033 Quarrier St, Charleston, W.Va.

MINERAL RIGHTS OWNER Same

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK Rodney

Dillon ADDRESS Sophia, W.Va

PERMIT ISSUED 12/4/86

DRILLING COMMENCED 12/30/86

DRILLING COMPLETED 1/9/87

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

| Casing Tubing | Used in Drilling | Left in Well | Cement fill up Cu. ft. |
|------------------------|---------------------|-----------------|------------------------------|
| Size 20-16 Cord. | | | |
| 13-10" | 43 | 0 | 0 |
| 9 5/8 | 992 | 992 | 375 sks |
| 8 5/8 | | | |
| 7 | 2504 | 2504 | 175 sks |
| 5 1/2 | | | |
| 4 1/2 | 5891 | 5891 | 260 sks |
| 3 | | | |
| 2 | | | |
| Liners used | | | |

Shot

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5300 feet

Depth of completed well 5910 feet Rotary X / Cable Tools

Water strata depth: Fresh 50 feet; Salt 500 feet

Coal seam depths: N/A Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Weir Pay zone depth 2927 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow 49 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure 770 psig (surface measurement) after 24 hours

(If applicable due to multiple completion--)

Second producing formation Devonian Shale Pay zone depth 3510 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

Final open flow 150 Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure 770 psig (surface measurement) after 24 hours shut in

(Continue on reverse side)

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WORK ORDER
131381 Rowland B-23
47-081-00751

PROPOSED PLUGGING PROCEDURE

1. Prepare plugging permit application.
2. Certify to surface and coal owners.
3. Certify to designated State inspector for signature.
4. Once all signatures are obtained, copy for our records and certify to Jeff at the State Office for approval.
5. Receive plugging permit good for 2 years.
6. Notify the designated State inspector 24 hours prior to commencing operations.
7. Take equipment to location and begin prepping for plug.
8. Rig up
9. Verify total depth of 4 1/2 @ 5891'. ~ 5910'
10. Attempt to clean out well bore to original depth, if needed.
11. Run tubing to bottom of 4 1/2 at ^{5991'}5981'. Set first plug with 178 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 5981' up to 3494'. (Bottom, Pay zone)
12. Pull tubing back, wait 8 hours
13. Run back in tag plug, add additional cement if needed.
14. Run 2 sacks of 6% Bentonite gel from 3494' up to 3112'
15. Pull tubing back to 3112', set second plug with 17 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 3112' up to 2877'. (Pay)
16. Pull tubing back, wait 8 hours
17. Run back in tag plug, add additional cement if needed.
18. Run 2 sacks of 6% Bentonite gel from 2877' up to 2350'.
19. Run in and severe 4 1/2 at approximately 2300', pull salvage.

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20. Run tubing into 2350', set third plug with 14 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 2350' up to 2250'.
21. Pull tubing back, wait 8 hours
22. Run back in tag plug, add additional cement if needed.
23. Run 10 sacks of 6% Bentonite gel from 2250' up to 1042'
24. Shoot 7" at or around 900', pull salvage.
25. Run tubing to 1042', set 4th plug with 44 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 1042' up to 850'.
26. Pull tubing back, wait 8 hours
27. Run back in tag plug, add additional cement if needed.
28. Run 12 sacks of 6% Bentonite gel from 850' up to 100'
29. Pull back to 100', run 34 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 100' to surface.
26. Solidify pit if necessary with more cement and lime, then bury.
27. Set 6" x 12.5" steel pipe with concrete with 1/2" API identification.
28. Rig down, and move equipment out.
29. Reclaim location
30. Prepare WR-34 & WR-38 for permit release.

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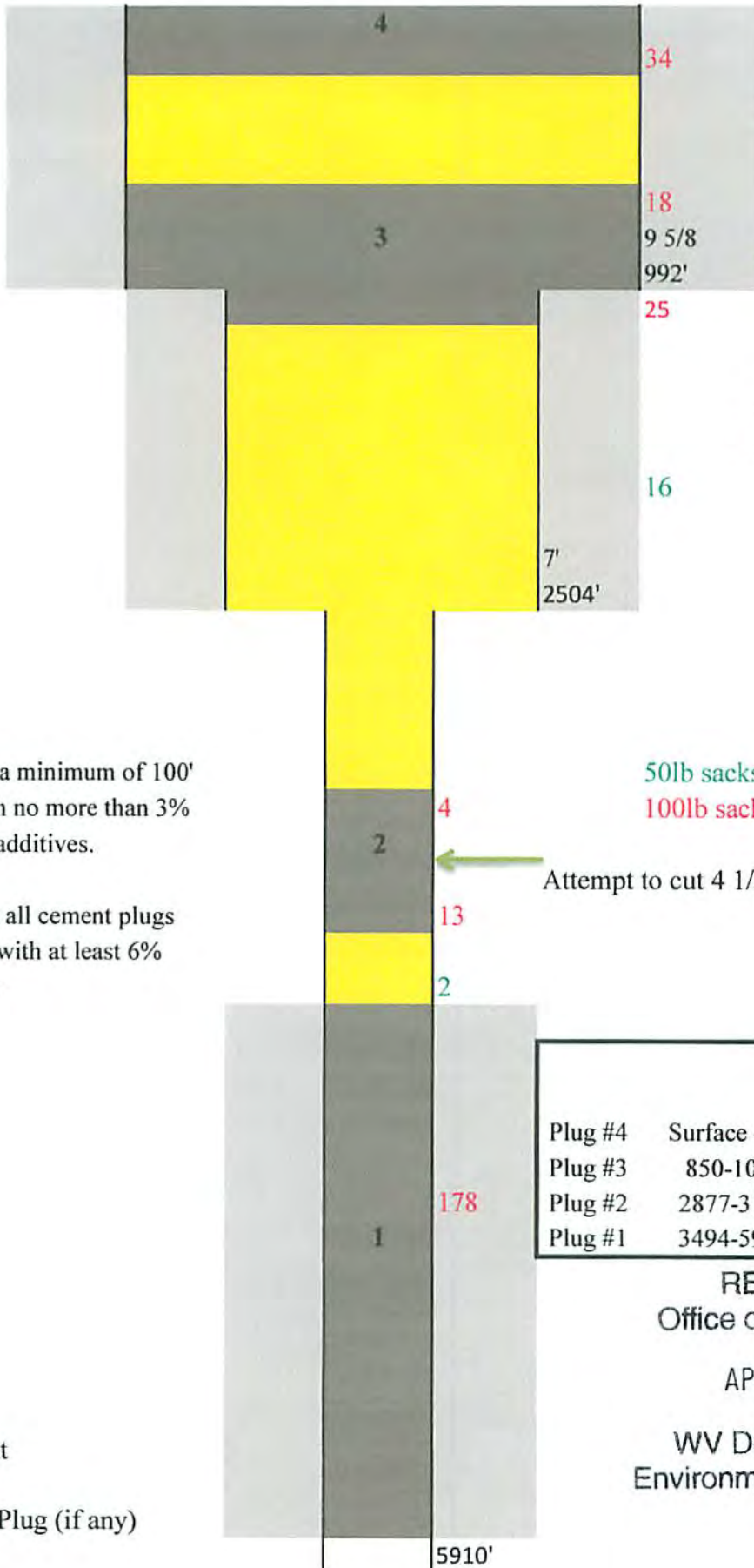
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81-0751P



Shoot 7" and pull at 900'

No need for elevation, cemented behind pipe

Cement plugs are at a minimum of 100' Class A Cement with no more than 3% CaCl₂ and no other additives.

Gel spacers between all cement plugs must be fresh water with at least 6% Bentonite by weight

50lb sacks of 6% gel used 30
100lb sacks of cement 272

Attempt to cut 4 1/2 at 2930'

| Plugs | | |
|---------|--------------|-----------------------------|
| Plug #4 | Surface -100 | Surface |
| Plug #3 | 850-1042 | 9 5/8 casing shoe/7' severe |
| Plug #2 | 2877-3112 | Severe/Pay |
| Plug #1 | 3494-5981 | Bottom/pays |

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█ : Cement
█ : Gel
— : Bridge Plug (if any)

[Signature]

06/19/2015

WW-4B

API No. 47-081-00751

Farm Name 131381 Rowland

Well No. B-23

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

By: _____

Its _____

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**WV Department of
Environmental Protection**

06/19/2015

1) Date: March 31, 2015
2) Operator's Well Number
131381 Rowland B-23
3) API Well No.: 47 - 081 - 00751 P

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>Rowland Land Company, LLC</u> | Name <u>None</u> |
| Address <u>405 Capital St. Ste 609</u> | Address _____ |
| <u>Charleston, WV 25301</u> | _____ |
| (b) Name _____ | (b) Coal Owner(s) with Declaration |
| Address _____ | Name <u>Rowland Land Company, LLC</u> |
| _____ | Address <u>405 Capital St. Ste 609</u> |
| _____ | <u>Charleston, WV 25301</u> |
| (c) Name _____ | Name _____ |
| Address _____ | Address _____ |
| _____ | _____ |
| 6) Inspector <u>Gary Kennedy</u> | (c) Coal Lessee with Declaration |
| Address <u>Po Box 268</u> | Name <u>Performance Coal Company/Alpha Natural Resources</u> |
| <u>Nimitz, WV 25978</u> | Address <u>300 Running Right Rd.</u> |
| Telephone <u>304-382-8402</u> | <u>Julian, WV 25521</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 | <u>New River Energy Corporation</u> |
| By: | <u><i>Roger L. White</i></u> |
| Its: | <u>Designated Agent</u> |
| Address | <u>8165 Elizabeth Pike</u> |
| | <u>Elizabeth, WV 26143</u> |
| Telephone | <u>304-275-4446</u> |



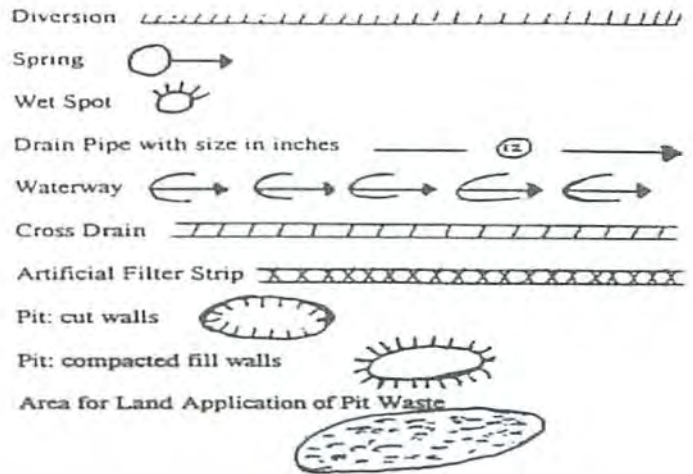
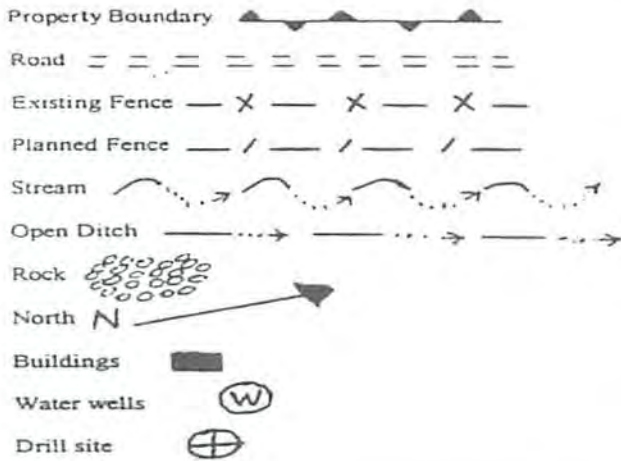
Subscribed and sworn before me this 1 day of April 2015
Jessica M. Lott Notary Public
My Commission Expires August 7, 2019

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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.

06/19/2015

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1+/- Prevegetation pH 5.8
 Lime 3 Tons/acre or to correct to pH 6.5
 Fertilizer (10-20-20 or equivalent) 1/3 ton lbs/acre (500 lbs minimum)
 Mulch 2 Tons/acre

Seed Mixtures

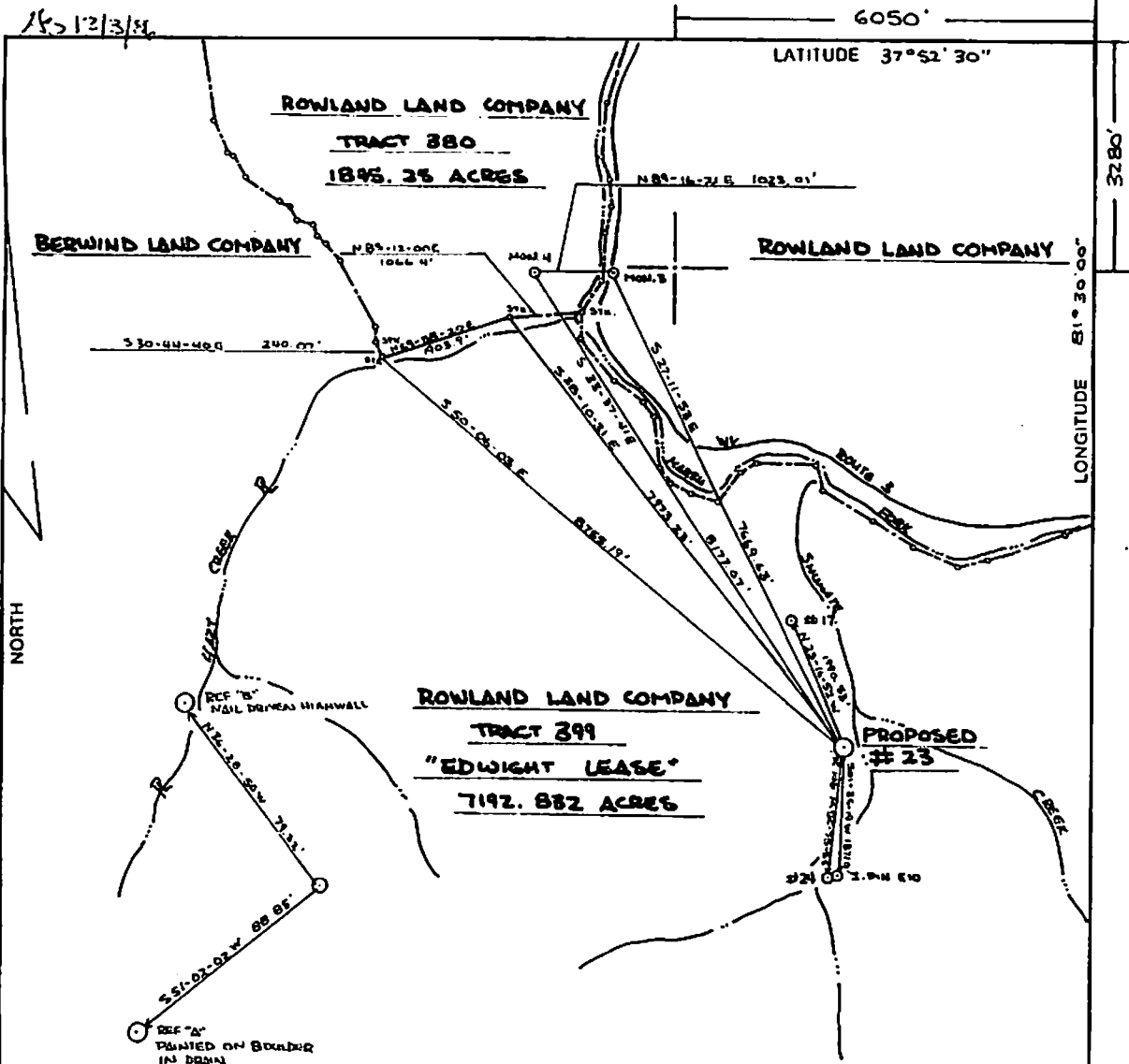
| Seed Type | Area I | lbs/acre | Seed Type | Area II | lbs/acre |
|---------------|--------|----------|-----------|---------|----------|
| Orchard grass | | 15 | | | |
| Clover | | 5 | | | |
| | | | | | |

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

Plan Approved by: *Henry Kennedy*
 Comments: _____

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Title: Inspector Date: 4/10/15
 Field Reviewed? () Yes () No



REFERENCES 1" = 50'

PEABODY COAL COORDINATES:

N: 585425.32
E: 3220544.52

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 86-081-018
DRAWING NO. 86053
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 IN 5000
PROVEN SOURCE OF ELEVATION BM M-408 ON EAST BRIDGE ANT. IN EDWIGHT
ELEVATION = 984.657

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 ENERGY.
(SIGNED) Ray James Capper
R.P.E. 8456 L.L.S.

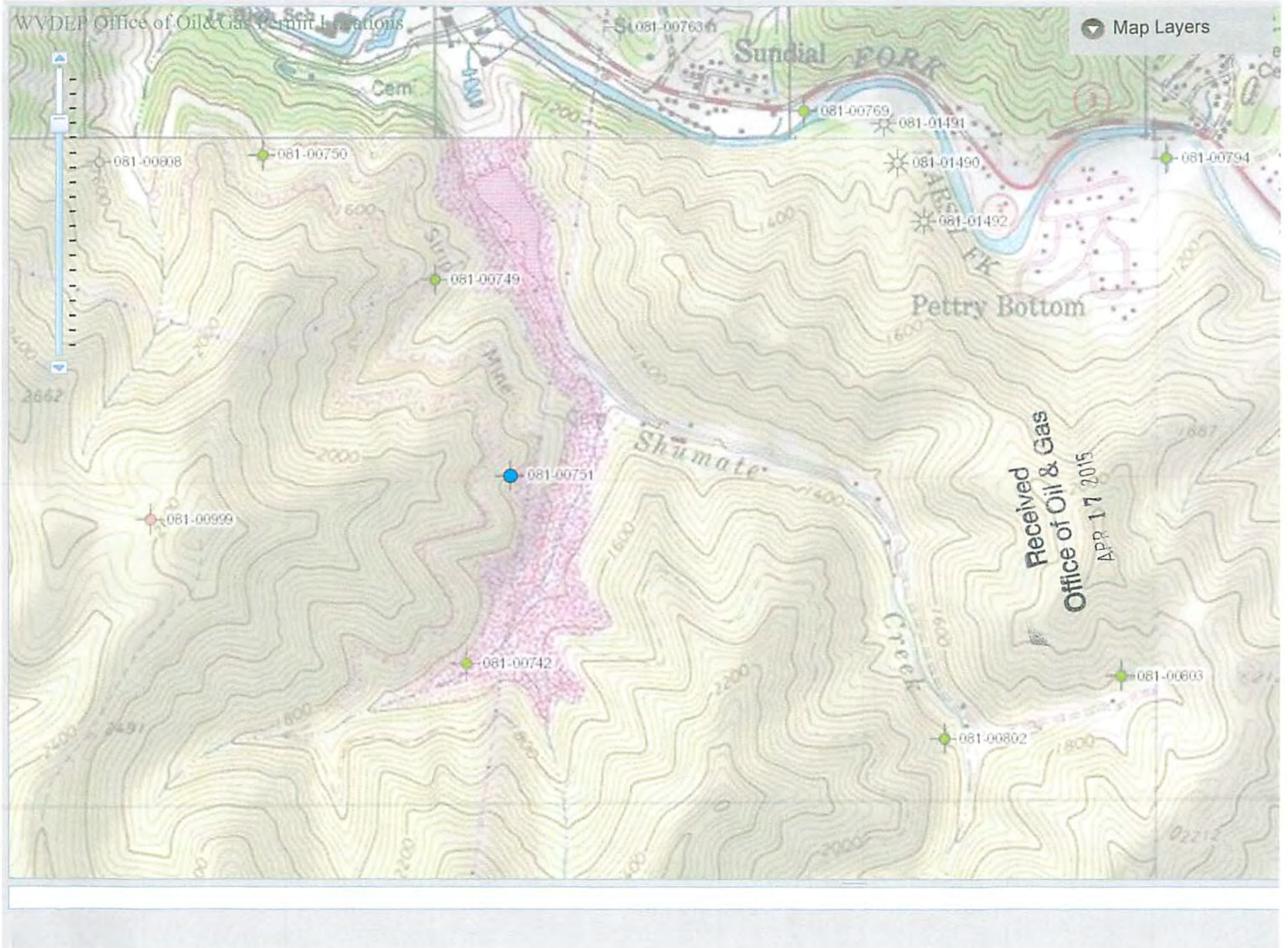
PLACE SEAL HERE

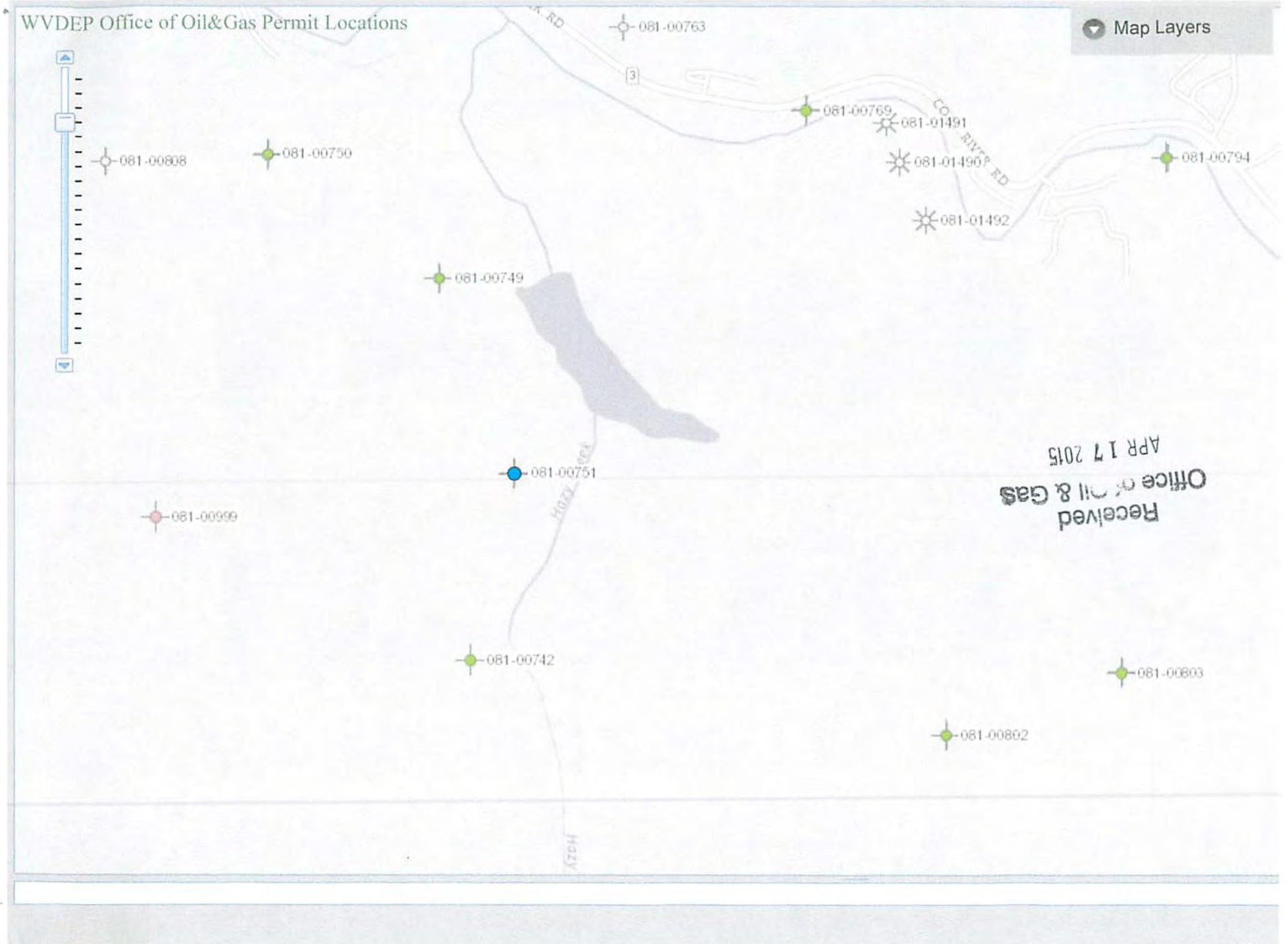
| | | | |
|---|--|---|--|
| STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION | | | DATE <u>30 OCTOBER 2015</u> OPERATOR'S WELL NO. <u>ROWLAND #23</u> API WELL NO. <u>47-081-0751</u> |
| WELL TYPE: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> (IF "GAS,") PRODUCTION <input type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> | | | STATE <u>RALEIGH</u> COUNTY <u>RALEIGH</u> |
| LOCATION: ELEVATION <u>1533.9</u> WATER SHED <u>SHIMATE CREEK OF MARSH FORK</u> DISTRICT <u>MARSH FORK</u> COUNTY <u>RALEIGH</u> QUADRANGLE <u>PILOT KNOB 7.5'</u> | | WV Department of Environmental Protection | |
| SURFACE OWNER <u>ROWLAND LAND COMPANY</u> OIL & GAS ROYALTY OWNER <u>SAME</u> LEASE NO. _____ LEASE ACREAGE <u>1560</u> | | COUNTY NAME _____ PERMIT NAME _____ | |
| PROPOSED WORK: DRILL <input type="checkbox"/> CONVERT <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ | | | |
| PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG _____ TARGET FORMATION <u>MARCELLUS SHALE</u> ESTIMATED DEPTH <u>5300'</u> WELL OPERATOR <u>ALLEGHENY + WESTERN</u> DESIGNATED AGENT <u>DENNIS L. MANN</u> ADDRESS <u>P.O. BOX 2587</u> ADDRESS <u>P.O. BOX 2587</u> <u>CHARLESTON, WEST VIRGINIA 25329</u> <u>CHARLESTON, WEST VIRGINIA 25329</u> | | | |

MT HALL - 1073 FORM WV-6

COUNTY NAME PERMIT

06/19/2015





WW-7
8-30-06



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

API: 47-081-00751 P WELL NO.: 131381 Rowland B-23

FARM NAME: Rowland Land Company

RESPONSIBLE PARTY NAME: New River Energy Corporation

COUNTY: Raleigh DISTRICT: Marsh Fork

QUADRANGLE: Pilot Knob 7.5'

SURFACE OWNER: Rowland Land Company

ROYALTY OWNER: Rowland Land Company, et al

UTM GPS NORTHING: 4191102

UTM GPS EASTING: 454213 GPS ELEVATION: 1555

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

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

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

- Letter size copy of the topography map showing the well location.**

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.


Signature

Office Manager

Title

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WV Department of
Environmental Protection

03/31/2015

Date

06/19/2015