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**west virginia** department of environmental protection

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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](http://www.dep.wv.gov)

December 05, 2013

**WELL WORK PERMIT**

**Re-Work**

This permit, API Well Number: 47-1704890, issued to DEEM, J. F. OIL & GAS, 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: MARY WALTON NO. 8  
Farm Name: COASTAL TIMBERLANDS CO.  
**API Well Number: 47-1704890**  
**Permit Type: Re-Work**  
Date Issued: 12/05/2013

**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

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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.
8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.

1704890R  
CK 14620  
#65000

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

1) Well Operator: J. F. Deem Oil & Gas      307118      Doddridge      New Milton      New Milton 7.5'  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: Mary Walton #8      3) Elevation: 1,084'

4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
(b) If Gas: Production X / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow X

5) Proposed Target Formation(s): Injun      Proposed Target Depth: 2,146'-2,175'

6) Proposed Total Depth: 2,380' Feet      Formation at Proposed Total Depth: Injun

7) Approximate fresh water strata depths: ~~None~~ 80' & 345'

8) Approximate salt water depths: None

9) Approximate coal seam depths: None

10) Approximate void depths, (coal, Karst, other): None listed in offset well data or well record

11) Does land contain coal seams tributary to active mine? None

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)  
RE-WORK WELL- Set Bridge Plug at 2,270', Perf 4.5" at 2,266', Cement through perf with 365 sacks 50/50 POXM14, Set Frac Plug at 2,260', Perf at 2,175' to 2,146', Stimulate zone with H2O and N2

13) **CASING AND TUBING PROGRAM**

|              | SPECIFICATIONS |       |               | FOOTAGE INTERVALS |              | CEMENT             |
|--------------|----------------|-------|---------------|-------------------|--------------|--------------------|
|              | Size           | Grade | Weight per ft | For Drilling      | Left in Well | Fill -up (Cu. Ft.) |
| Conductor    |                |       |               |                   |              |                    |
| Fresh Water  |                |       |               |                   |              |                    |
| Coal         |                |       |               |                   |              |                    |
| Intermediate | 8 5/8"         |       |               |                   | 1133'        |                    |
| Production   | 4.5"           | J-55  |               |                   | 5463'        |                    |
| Tubing       |                |       |               |                   |              |                    |
| Liners       |                |       |               |                   |              |                    |

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Office of Oil and Gas

Packers: Kind: \_\_\_\_\_  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

DEC 04 2013

1704890R

WR-35

DATE: February 21, 2005  
API #: 47-017-04890

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

*Br 13*

Well Operator's Report of Well Work

Farm name: Mary Walton Operator Well No.: Eight (8)  
LOCATION: Elevation: 1098' Quadrangle: New Milton  
District: New Milton County: Doddridge  
Latitude: 10,790 Feet South of 39 Deg. 15 Min. 00 Sec.  
Longitude 10,720 Feet West of 80 Deg. 40 Min. 00 Sec.

Company: J. F. Deem Oil & Gas LLC

|   | Casing & Tubing | Used in drilling | Left in well | Cement fill up Cu. Ft. |
|---|-----------------|------------------|--------------|------------------------|
| Address: <u>4541 Emerson Avenue</u><br><u>Parkersburg, WV 26104</u> | <u>8-5/8</u>    | <u>1133</u>      | <u>1133</u>  | <u>336 Cu Ft</u>       |
| Agent: <u>Frank Deem</u>  | <u>4-1/2</u>    |                  | <u>5463</u>  | <u>619 Cu Ft</u>       |
| Inspector: <u>Mike Underwood</u>                                    |                 |                  |              |                        |
| Date Permit Issued:   |                 |                  |              |                        |
| Date Well Work Commenced: <u>01-11-05</u>                           |                 |                  |              |                        |
| Date Well Work Completed: <u>01-31-05</u>                           |                 |                  |              |                        |
| Verbal Plugging:  |                 |                  |              |                        |
| Date Permission granted on:   |                 |                  |              |                        |
| Rotary <del>xxx</del> Cable Rig                                     |                 |                  |              |                        |
| Total Depth (feet): <u>5532'</u>                                    |                 |                  |              |                        |
| Fresh Water Depth (ft.): <u>80' &amp; 345'</u>                      |                 |                  |              |                        |
| Salt Water Depth (ft.): <u>N/A</u>                                  |                 |                  |              |                        |
| Is coal being mined in area (N/Y)? <u>No</u>                        |                 |                  |              |                        |
| Coal Depths (ft.): <u>None</u>                                      |                 |                  |              |                        |

OPEN FLOW DATA  
Alexander 5290-5372  
Benson 5011-5018  
Producing formation Riley Pay zone depth (ft) 4539-4938  
Gas: Initial open flow 5 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 790 MCF/d Final open flow Show Bbl/d  
Time of open flow between initial and final tests 16 Days Hours  
Static rock Pressure 1310 psig (surface pressure) after 48 Hours  
Balltown 3849-4556  
Second producing formation Warren Pay zone depth (ft) 3380-3480  
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

\*All Formations Co-Mingled.  
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.

Signed: J.F. Deem  
By: J.F. Deem  
Date: 4/19/05

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Office of Oil & Gas  
Office of Chief  
APR 22 2005  
WV Department of  
Environmental Protection

Done 4890

TREATMENT:

- Stage #1: Alexander (5306-5371) 13 Holes; 500 GA, 60,000# 20/40 Sand & 818 Bbls. 60 Quality Foam
- Stage #2: Benson & Riley (4914-5015) 13 Holes; 750 GA, 30,000# 20/40 Sand & 528 Bbls. 60 Quality Foam
- Stage #3: Riley & Lower Balltown (4242-4554) 13 Holes; 750 GA, 5,000# 80/100 & 25,000# 20/40 Sand & 617 Bbls. 60 Quality Foam
- Stage #4: Upper Balltown & Warren (3385-3852) 13 Holes; 1,000 GA, 5,000# 80/100 Sand & 40,000# 20/40 Sand & 641 Bbls. 60 Quality Foam

FORMATIONS:

|                 |      |   |      |            |      |   |      |
|-----------------|------|---|------|------------|------|---|------|
| Clay            | 0    | - | 12   | Sand/Shale | 2550 | - | 2740 |
| Sand & Shale    | 12   | - | 18   | Sand       | 2740 | - | 2750 |
| Shale           | 18   | - | 22   | Sand/Shale | 2750 | - | 3390 |
| Sand            | 22   | - | 32   | Sand       | 3390 | - | 3405 |
| W Sand          | 32   | - | 65   | Sand/Shale | 3405 | - | 3770 |
| Red Rock/Shale  | 65   | - | 100  | Brn Sand   | 3770 | - | 3790 |
| W Sand          | 100  | - | 229  | Sand/Shale | 3790 | - | 3840 |
| Red Rock/Shale  | 229  | - | 236  | Brn Sand   | 3840 | - | 3850 |
| W Sand          | 236  | - | 245  | Sand/Shale | 3850 | - | 3966 |
| Lime/Sand       | 245  | - | 248  | Sand       | 3966 | - | 3977 |
| Red Rock/Shale  | 248  | - | 254  | Sand/Shale | 3977 | - | 4124 |
| W Sand          | 254  | - | 264  | Brn Sand   | 4124 | - | 4131 |
| Red Rock/Shale  | 264  | - | 285  | Sand/Shale | 4131 | - | 4980 |
| W Sand          | 285  | - | 316  | Brn Sand   | 4980 | - | 5000 |
| Red Rock/Shale  | 316  | - | 330  | Sand/Shale | 5000 | - | 5020 |
| W Sand          | 330  | - | 350  | Benson     | 5020 | - | 5040 |
| Lime/Sand       | 350  | - | 355  | Sand/Shale | 5040 | - | 5160 |
| W Sand          | 355  | - | 395  | Lt Brn     | 5160 | - | 5180 |
| Red Rock/Shale  | 395  | - | 400  | Sand/Shale | 5180 | - | 5270 |
| W Sand          | 400  | - | 415  | Alexander  | 5270 | - | 5290 |
| Sand/Shale      | 415  | - | 465  | Sand/Shale | 5290 | - | 5340 |
| Sand/Shale/Sand | 465  | - | 527  | Brn Sand   | 5340 | - | 5360 |
| W Sand          | 527  | - | 580  | Sand/Shale | 5360 | - | 5440 |
| Red Rock/Shale  | 580  | - | 585  | Brn Sand   | 5440 | - | 5460 |
| Sand            | 585  | - | 1745 | Sand/Shale | 5460 | - | 5532 |
| Sand/Shale      | 1745 | - | 1752 | RTD        | 5532 | - |      |
| Brn Sand        | 1752 | - | 1955 |            |      |   |      |
| Sand/Shale      | 1955 | - | 1970 |            |      |   |      |
| W Sand          | 1970 | - | 1980 |            |      |   |      |
| Sand/Shale      | 1980 | - | 1990 |            |      |   |      |
| L Lime          | 1990 | - | 1998 |            |      |   |      |
| W Sand          | 1998 | - | 2025 |            |      |   |      |
| B Lime          | 2025 | - |      |            |      |   |      |
| Injun           |      | - | 2163 |            |      |   |      |
| Sand/Shale      | 2163 | - | 2260 |            |      |   |      |
| W Sand          | 2260 | - | 2270 |            |      |   |      |
| Sand/Shale      | 2270 | - | 2326 |            |      |   |      |
| Sand            | 2326 | - | 2356 |            |      |   |      |
| Sand/Shale      | 2356 | - | 2530 |            |      |   |      |
| Brn Shale       | 2530 | - | 2550 |            |      |   |      |

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 Office of the  
 NOV 1 1993  
 WV State Dept  
 Environmental Protection

1704890R

WW-2A  
(Rev. 6-07)

1). Date: \_\_\_\_\_  
2.) Operator's Well Number Walton No. 8  
State 47- County 017 Permit 4890  
3.) API Well No.: \_\_\_\_\_

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name Coastal Timberlands Company  
Address P.O. Box 709  
Buckhannon, WV 26201  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Douglas Newlon  
Address 4060 Dutchman Road  
Macfarlan, WV 26148  
Telephone 304-932-8049

5) (a) Coal Operator  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

x Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through     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 35 CSR 4, 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 J.F. Deem Oil and Gas, LLC  
By: Frank Deem  
Its: Designated Agent  
Address 4541 Emerson Avenue #1 Floor 2  
Parkersburg, WV 26104  
Telephone 304-428-0005

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
Melinda K. Johnson Notary Public  
My Commission Expires July 17, 2013

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](mailto:depprivacyofficer@wv.gov)

Office of Oil and Gas  
WV  
Environmental

1704890 R

WW-2A1  
(Rev. 1/11)

Operator's Well Number Walton No. 8

**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                     |
|-----------------------|-----------------------|---------|-------------------------------|
| John Walton, et al    | George Jackson        | 1/8     | 69/162                        |
| George Jackson        | Ferrall Prior         | W.I.    |                               |
| Ferrell Prior         | Waco Oil & Gas        | W.I.    | Bought rights thru bankruptcy |
| Waco Oil & Gas        | Ashland               | W.I.    |                               |
| Ashland               | J.F. Deem             | W.I.    | 179/124-133<br>By Assignment  |

**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:

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

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: J.F. Deem Oil and Gas, L.C.  
 By: Its: Frank Deem, Designated Agent  
 NOV 28 2013

WV DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name J.F. Deem Oil and Gas, LLC OP Code 307118

Watershed (HUC 10) Tributary of Toms Fork Quadrangle New Milton 7.5'

Elevation 1,084' County Doddridge District New Milton

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

Will a pit be used for drill cuttings? Yes X No \_\_\_\_\_

If so, please describe anticipated pit waste: Flowback waste

Will a synthetic liner be used in the pit? Yes X No \_\_\_\_\_ If so, what ml.? 60

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 \_\_\_\_\_ )

Will closed loop system be used? N/A

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

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

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-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 \_\_\_\_\_

Company Official (Typed Name) Frank Deem

Company Official Title Designated Agent

Subscribed and sworn before me this 7th day of November, 2013

Melinda K. Johnson

My commission expires July 9, 2017.

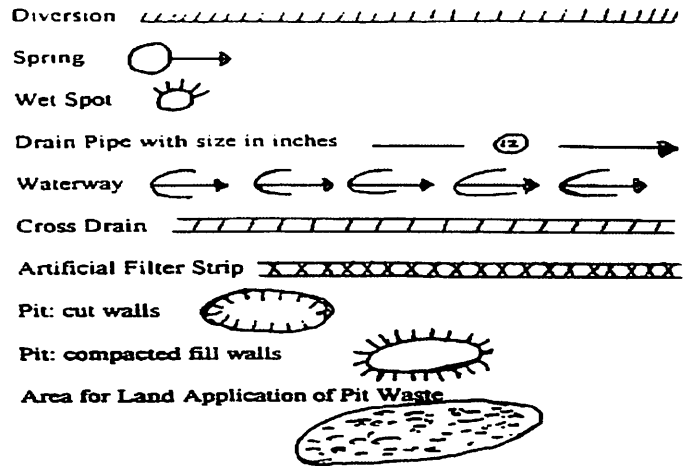
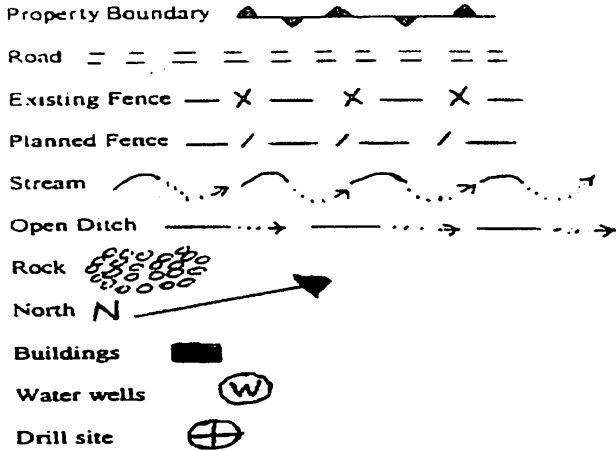
Notary Public



OFFICIAL SEAL  
STATE OF WEST VIRGINIA  
NOTARY PUBLIC  
Melinda K. Johnson  
1139 - 46th. Street  
Vienna, WV 26105  
My Commission Expires July 9, 2017



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 2.25 +/- Prevegetation pH \_\_\_\_\_

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 HAY 2 Tons/acre

Seed Mixtures

| Seed Type     | Area I | lbs/acre | Seed Type     | Area II | lbs/acre |
|---------------|--------|----------|---------------|---------|----------|
| KY-31         |        | 40       | ORCHARD GRASS |         | 15       |
| ALSIKE CLOVER |        | 5        | ALSIKE CLOVER |         | 5        |
| ANNUAL RYE    |        | 15       |               |         |          |

Attach:  
 Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Douglas Newlon Mike Guff

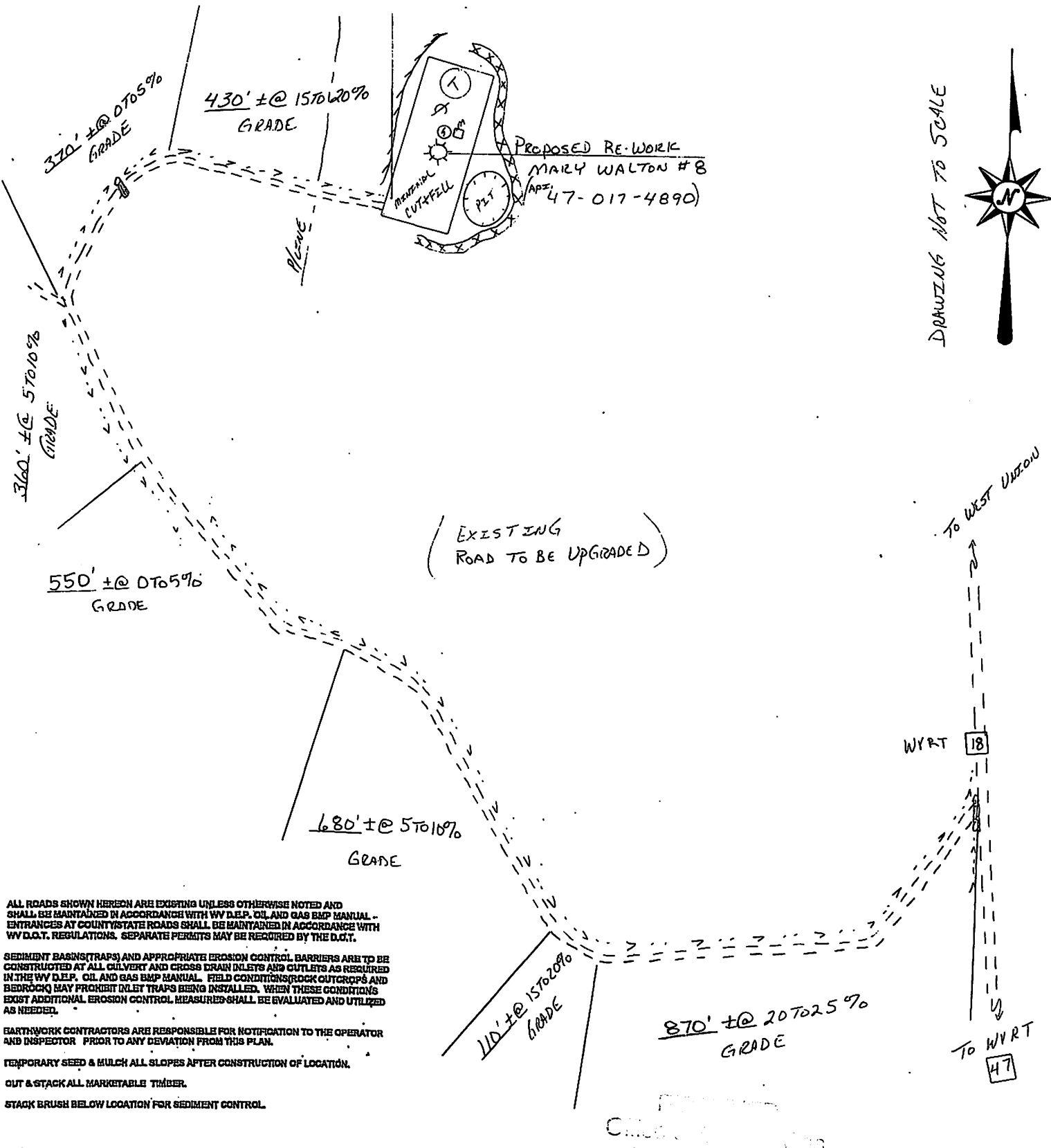
Comments: seed & mulch any disturbed areas

Title: Oil & Gas Inspector Date: 11-4-2013

Field Reviewed? ( ) Yes (  ) No

Office of Oil & Gas  
 NOV 11 2013  
 Environmental Protection

# MARY WALTON LEASE WELL NO. 8



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL. ENTRANCES AT COUNTY STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.


SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

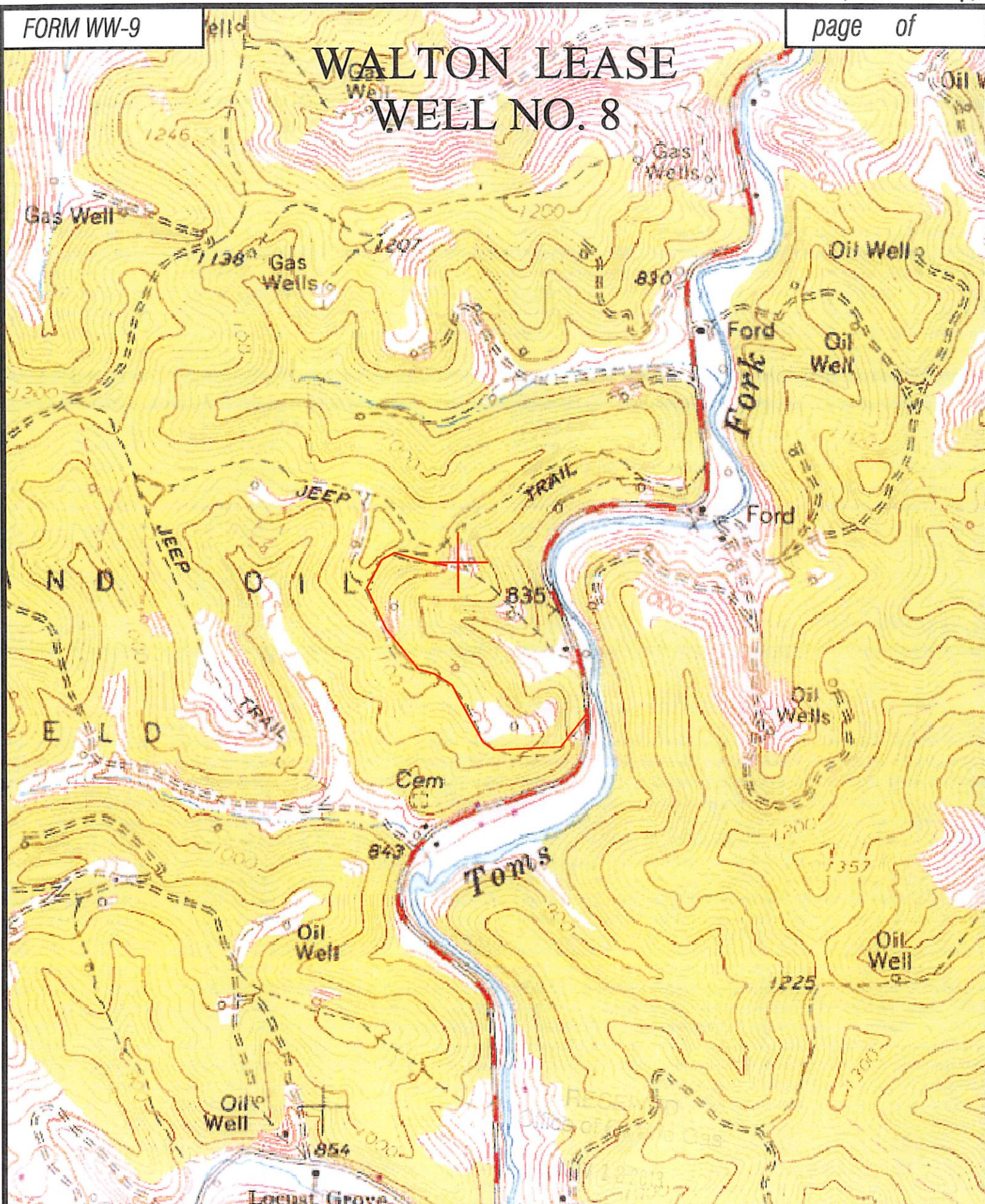
TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

OUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

|  |   |
|--|---|
|  <b>SMITH LAND SURVEYING, INC.</b><br>P.O. BOX 150 GLENVILLE, WV. 26351 | Phone: (304) 462-5634 Fax: 462-5656 email: sls@slssurveys.com |
|  | DRAWN BY: JAS DATE 10/17/13 FILE NO. 8104                     |

# WALTON LEASE WELL NO. 8



Professional Energy Consultants  
A DIVISION OF SOUTH LAND SURVEYING



Surveyors  
Product Mgmt. **SLS** Engineers  
Environmental

228 Third Floor St.  
P.O. Box 102  
Grandville, WI 54301  
715.483.5234

North Dakota, Bureau No. 01  
South Dakota, 04-2337  
Iowa 017-9311

Honesty Integrity Quality

TOPO SECTION OF: NEW MILTON 7.5'

FILE NO. 8104

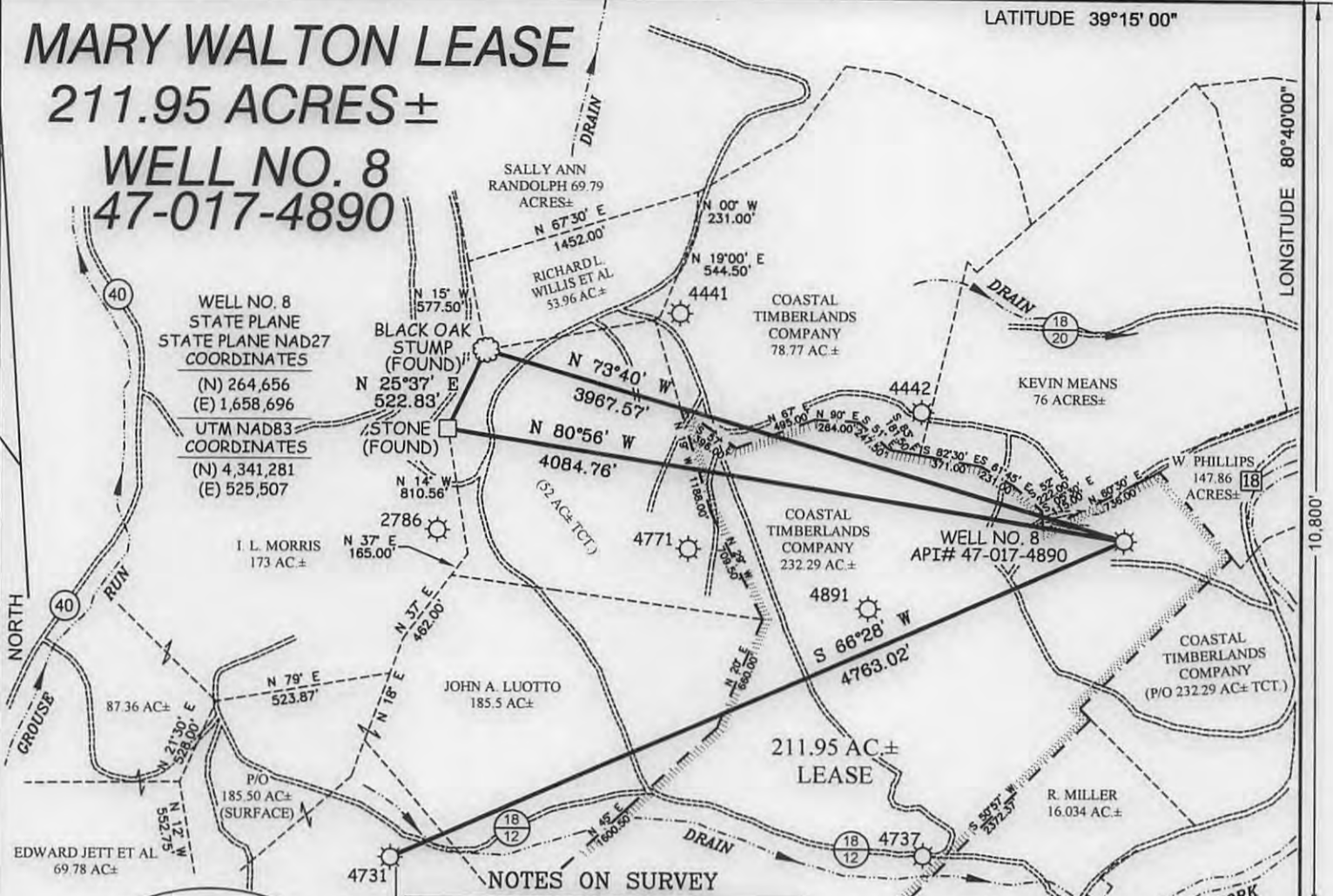
DATE: 10/23/13

SCALE: 1"=1,000'

# MARY WALTON LEASE

## 211.95 ACRES ±

### WELL NO. 8 47-017-4890



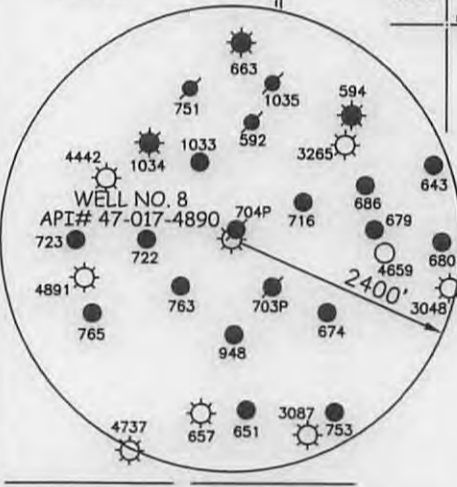
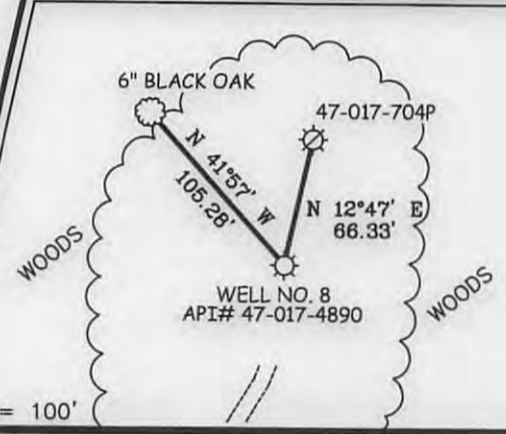
**WELL NO. 8  
STATE PLANE  
NAD27  
COORDINATES**  
(N) 264,656  
(E) 1,658,696

**UTM NAD83  
COORDINATES**  
(N) 4,341,281  
(E) 525,507

#### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 10/15/13.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 482 AT PAGE 77.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN OCTOBER, 2013.
5. WELL LAT./LONG. ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).
6. THIS WELL WAS PREVIOUSLY PERMITTED 47-017-4890 IN SEPTEMBER, 2004, AND HAS BEEN UPDATED OCTOBER, 2013, TO REFLECT NEW WELL SPOT AND CURRENT OWNERSHIP.
7. NO WATER WELLS WERE FOUND WITHIN 250 FEET OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS (GREATER THAN 2500 FEET) OR DWELLINGS WERE FOUND WITHIN 625 FEET OF CENTER OF PROPOSED WELL PAD.

#### REFERENCES



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677  
*Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE OCTOBER 21, 20 13  
OPERATORS WELL NO. MARY WALTON NO. 8  
API WELL NO. 47 - 017 - 04890R  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 8104P8 (482-77)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 1000'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS



WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1,084' WATERSHED TRIBUTARY OF TOMS FORK  
DISTRICT NEW MILTON COUNTY DODDRIDGE QUADRANGLE NEW MILTON 7.5'  
SURFACE OWNER COASTAL TIMBERLANDS COMPANY ACREAGE 232.29±  
ROYALTY OWNER MARY PHILLIPS HEIRS ET AL LEASE ACREAGE 211.95±  
PROPOSED WORK: LEASE NO. \_\_\_\_\_  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_  
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION INJUN  
ESTIMATED DEPTH 2,146' TO 2,175'

WELL OPERATOR J. F. DEEM OIL & GAS, LLC DESIGNATED AGENT FRANK DEEM  
ADDRESS 4541 EMERSON AVENUE, #1 FLOOR 2 ADDRESS 5518 2ND AVENUE  
PARKERSBURG, WV 26104 VIENNA, WV 26105

COUNTY NAME  
PERMIT

1704890R

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

1) Well Operator: J. F. Deem Oil & Gas      307118      Doddridge      New Milton      New Milton 7.5'  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: Mary Walton # 8      3) Elevation: 1,084'

4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
(b) If Gas: Production X / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow X

5) Proposed Target Formation(s): Injun      Proposed Target Depth: 2,146'-2,175'

6) Proposed Total Depth: 2,380' Feet      Formation at Proposed Total Depth: Injun

7) Approximate fresh water strata depths: 80' & 345#

8) Approximate salt water depths: None

9) Approximate coal seam depths: None

10) Approximate void depths,(coal, Karst, other): None listed in offsetwell data or well record

11) Does land contain coal seams tributary to active mine? None

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)  
RE-WORK WELL- Set Bridge Plug at 2,270', Perf 4.5" at 2,266', Cement through perf with 365 sacks  
50/50 POZM14, Set Frac Plug at 2,260', Perf at 2,175' to 2,146', Stimulate zone with H2O and N2.

13) **CASING AND TUBING PROGRAM**  
TYPE      SPECIFICATIONS      FOOTAGE      INTERVALS      CEMENT

|              | Size   | Grade | Weight per ft | For Drilling | Left in Well | Fill -up (Cu. Ft.) |
|--------------|--------|-------|---------------|--------------|--------------|--------------------|
| Conductor    |        |       |               |              |              |                    |
| Fresh Water  |        |       |               |              |              |                    |
| Coal         |        |       |               |              |              |                    |
| Intermediate | 8-5/8" |       |               |              | 1133'        |                    |
| Production   | 4.5"   |       |               |              | 5463'        |                    |
| Tubing       |        |       |               |              |              |                    |
| Liners       |        |       |               |              |              |                    |

Packers: Kind: \_\_\_\_\_  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

RECEIVED  
Office of Oil and Gas

DEC 04 2013

WV Department of  
Environmental Protection