**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 23, 2014

**WELL WORK PERMIT**

**Vertical Well**

This permit, API Well Number: 47-8510121, issued to MURVIN & MEIER OIL CO., 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: GREGG HEIRS M2
Farm Name: HEARTWOOD FORESTLAND FU
**API Well Number: 47-8510121**
**Permit Type: Vertical Well**
Date Issued: 06/23/2014

**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

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.

8510121

WW - 2B
(Rev. 8/10)

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

1) Well Operator Murvin & Meier Oil Co. | 307980 | Ritchie (85) | Murphy (3) | Smithville 7.5' (612)
Operator ID | County | District | Quadrangle

2) Operator's Well Number: Gregg Hrs M2 3) Elevation: 1083

4) Well Type: (a) Oil X or Gas X

(b) If Gas: Production X / Underground Storage _____

Deep _____ / Shallow X

5) Proposed Target Formation(s): Injun and Berea Proposed Target Depth: 2450
6) Proposed Total Depth: 2450 Feet Formation at Proposed Total Depth: Shale 3 BEREA
7) Approximate fresh water strata depths: 70' (Permit #9815)
8) Approximate salt water depths: None (Permits #1271, 2017, 9815)

9) Approximate coal seam depths: None (Permits #1271, 2017, 9815)

10) Approximate void depths,(coal, Karst, other): none

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work in detail Drill and Complete New Well

13) **CASING AND TUBING PROGRAM**

| TYPE | SPECIFICATIONS Size | Grade | Weight per ft | FOOTAGE INTERVALS For Drilling | Left in Well | CEMENT Fill -up (Cu. Ft.) |
|---|---|---|---|---|---|---|
| Conductor | 16" | | 32 | 20' | 20' | |
| Fresh Water | 11 3/4" | A-500 | 32 | 300' | 300' | CTS |
| Coal | | | | | | |
| Intermediate | 8 5/8" | A-500 | 20/23# | 1200' | 1200' | CTS |
| Production | 4 1/2" | WTLSY | 9.5# | 2400' | 2400' | 250 |
| Tubing | | | | | | |
| Liners | | | | | | |

Packers: Kind
Sizes
Depths Set

Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

3-27-14

8510121

**WW-2A**
(Rev. 6-07)

1). Date: 4/7/2014
2.) Operator's Well Number Gregg Hrs M2
State County Permit
3.) API Well No.: 47- 085 -

ck #32398 $650.00

## 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 Heartwood Forestland Fund IV
Address 3001 Emerson Ave.
Parkersburg, WV 26104-2415
(b) Name
Address
(c) Name
Address

5) (a) Coal Operator
Name None
Address
(b) Coal Owner(s) with Declaration
Name
Address
Name
Address

6) Inspector Mr. David Cowan
Address Route 1 Box 202
Harrisville WV 26362
Telephone 304-389-3509

(c) Coal Lessee with Declaration
Name None
Address

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

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

**OR**

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

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 9 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.

Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Well Operator Murvin and Meloy Oil Co.
By: [signature]
Its: Executive Vice-President
Address P.O. Box 396
Olney, Illinois 62450
Telephone (618)-395-4405

Subscribed and sworn before me this 7th day of April, 2014

Kellie Weems
Notary Public
"OFFICIAL SEAL"
KELLIE WEEMS
Notary Public, State of Illinois
My Commission Expires 11-30-16

My Commission Expires 11/30/16

**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**

8510121

**SENDER: COMPLETE THIS SECTION**

- 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.

1. Article Addressed to:

Heartland Forestland
3001 Emerson Avenue
Parkersburg WV 26104

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature: Paula Linder ☐ Agent ☐ Addressee

B. Received by (Printed Name): Paula Linder C. Date of Delivery: 4/10/14

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail® ☐ Priority Mail Express™
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ Collect on Delivery

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7013 1090 0001 8665 5189

PS Form 3811, July 2013 Domestic Return Receipt

Received

MAY 14 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

85 10121

WW-2A1
(Rev. 1/11)

Operator's Well Number Gregg Hrs M2

**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 |
|---|---|---|---|
| Zedie O. Gregg etal | Clem S. Morris | 1/8 | 78/204 |
| Clem S. Morris | Beall/Bishop O&G | Assignment | Book 224 / Pg 524 |
| Beall/Bishop O&G | Murvin & Meier Oil Co. | Farmout | 248/288 |

**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

Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

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: Murvin and Meier Oil Co.
By: Ralph Hack
Its: Exec. Vice-President

851012l

WW-2B1
(5-12)

Well No. Gregg Heirs M2

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.

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

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name: Reliance Labs
Sampling Contractor: Smith Land Surveying, Inc. - Environmental Division

Well Operator: Murvin & Meier Oil Co.
Address: P.O. Box 396
Olney, IL 62450
Telephone: 618-395-4405

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 underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

NOTE: There appears to be no potable water sources within 1,500', therefore no tests will be required.

MUST GO OUT TO 2000'.

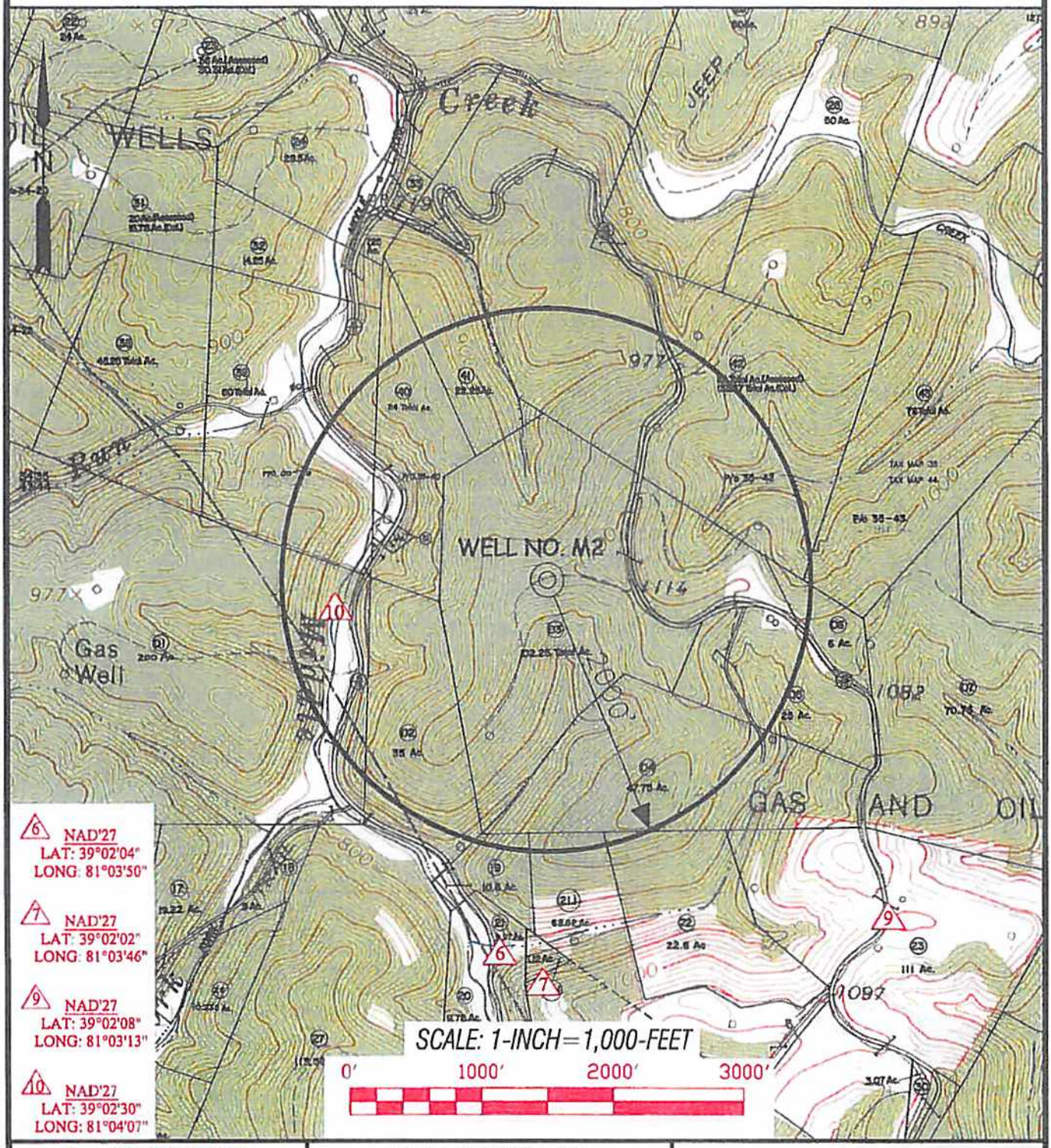
Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

8510121

WATER SAMPLES

# GREGG HEIRS LEASE
# WELL NO. M2

page of




Professional Energy Consultants

| DRAWN BY | FILE NO. | DATE | CADD FILE: |
|---|---|---|---|
| K.D.W. | 7427 | 06/20/14 | 7427WM2.DWG |

TOPO SECTION OF:
SMITHVILLE, WV 7.5' QUAD.

| DISTRICT | COUNTY | TAX MAP-PARCEL NO. |
|---|---|---|
| MURPHY | RITCHIE | 44-03 |

OPERATOR:
MURVIN & MEIER OIL CO.
P.O. BOX 396
OLNEY, IL 62450

8510121

SMITH LAND SURVEYING, INC. P.O. BOX 150, GLENVILLE, WV 26351
(304) 462-5634 • FAX 462-5658

# WELL INFORMATION AND POTENTIAL WATER WELL SAMPLE DATA SHEET

**OPERATOR:** *Murvin & Meier Oil Company*
**LEASE NAME AND NUMBER:** *Greg Heirs M-2*

## COMMENTS

The initial field and/or mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 2000' of the proposed well site. (For location of each site see attached area map.)

## INDIVIDUAL CONTACTED OR NOTIFIED

Site: *1* Spacing _____ Owner/Occupant: *Hearnwood Forestland Fund II' Limited Partnership*
Address: *3001 Emerson Ave. Parkersburg, WV 26104* Ph: _____
Field Contact Date: *N/A* Sampled: *No* Date Sampled: *N/A* Source: *Unknown*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 35, Parcels 39, 40, 41 and 42 Tax Map 44, Parcel 3*
*Letter of refusal signed 5/29/14*

Site: *2* Spacing _____ Owner/Occupant: *Robert Huff and Micheal Buehner*
Address: *16160 Boston Rd. Strongsville, OH 44136* Ph: _____
Field Contact Date: *N/A* Sampled: *No* Date Sampled: *N/A* Source: *Unknown*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcels 4, 5 and 6*

Site: *3* Spacing _____ Owner/Occupant: *Leonard and John Holstine*
Address: *HC 75 Box 24 Smithville, WV 26178* Ph: _____
Field Contact Date: *N/A* Sampled: *No* Date Sampled: *N/A* Source: *Unknown*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 35, Parcel 43*

Site: *4* Spacing _____ Owner/Occupant: *Mike Ross Inc.*
Address: *P.O. Box 219 Coalton, WV 26257* Ph: _____
Field Contact Date: *N/A* Sampled: *No* Date Sampled: *N/A* Source: *Unknown*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcel 1*

851012l

Site: 5 Spacing _____ Owner/Occupant: *Tony M & Robin E Butts*
Address: *307 Wishbone Cir. Hedgesville, WV 25427* Ph: _____
Field Contact Date: *N/A* Sampled: *No* Date Sampled: *N/A* Source: *Unknown*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcel 2*

Site: *6 Spacing *3010'* Owner/Occupant: *Donnie & Holly Millican*
Address: *3192 Trotter Rd. Norton, OH 44203* Ph: *(330)-592-5762*
Field Contact Date: *6/8/14* Sampled: *Yes* Date Sampled: *6/8/14* Source: *Spring*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcel 19*
*Northing: 39° 02' 04"*
*Easting: 81° 03' 50"*

Site: *7 Spacing *2780'* Owner/Occupant: *Donnie & Holly Millican*
Address: *3192 Trotter Rd. Norton, OH 44203* Ph: *(330)-592-5762*
Field Contact Date: *6/8/14* Sampled: *Yes* Date Sampled: *6/8/14* Source: *Water Well*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcel 19*
*Northing: 39° 02' 02"*
*Easting: 81° 03' 46"*

Site: 8 Spacing _____ Owner/Occupant: *Sandra K Lenhart*
Address: *P.O. Box 169 U-2 Rd. Arthurdale, WV 26520* Ph: _____
Field Contact Date: *N/A* Sampled: *No* Date Sampled: *N/A* Source: *Unknown*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcel 21.1*

Site: *9 Spacing *3600'* Owner/Occupant: *Margaret Kirby*
Address: *8945 N Calhoun Hwy Big Springs, WV 26137* Ph: *(304)-477-3241*
Field Contact Date: *6/1/14* Sampled: *Yes* Date Sampled: *6/1/14* Source: *Water Well*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *5/21/14*
Comments: *Tax Map 44, Parcel 22*
*Northing: 39° 02' 08"*
*Easting: 81° 03' 13"*

Site: *10 Spacing *1620'* Owner/Occupant: *Murvin And Meier Oil Company*
Address: *777 N Michigan Avenue Chicago, IL 60611* Ph: *(312) 951-9129*
Field Contact Date: *6/18/14* Sampled: *Yes* Date Sampled: *6/18/14* Source: *Creek*
If No, declined by who _____ Letter/Notice Date: 1st *N/A* 2nd *N/A* Certified (3rd) *N/A*
Comments: *Murvin And Meier Oil Company is not the landowner but has requested the creek be sampled.*
*Northing: 39° 02' 30"*
*Easting: 81° 04' 07"*

7427 Murvin&Meier water final GregHeirsM-2 pg2

FRONT & BACK

8510121

WW-9
(5/13)

Page 5 of 9
API Number 47 - 085 -
Operator's Well No. Gregg Hrs M2

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Murvin & Meier Oil Company OP Code 307980

Watershed (HUC 10) Middle Fork of Leatherbark Creek Quadrangle Smithville 7.5'

Elevation 1083 County Ritchie District Murphy

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: Drill water and various formation cuttings

Will a synthetic liner be used in the pit? Yes X No ____ If so, what ml.? ~~10~~ 20 MIL

Proposed Disposal Method For Treated Pit Wastes:

- ■ Land Application
- ____ Underground Injection ( UIC Permit Number ____ )
- ____ Reuse (at API Number ____ )
- ____ Off Site Disposal (Supply form WW-9 for disposal location)
- ____ Other (Explain ____

Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Will closed loop system be used? No

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

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

Additives to be used in drilling medium? Soap

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) ____

-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 Kate M Blackford

Company Official (Typed Name) Kate M. Blackford, Exec. Vice-President

Company Official Title - -

Subscribed and sworn before me this 7th day of April, 2014

Kellie Weems
Notary Public

"OFFICIAL SEAL"
KELLIE WEEMS
Notary Public, State of Illinois
My Commission Expires 11-30-16

My commission expires 11/30/16

Form WW-9

85 10 121

Operator's Well No. Gregg Hrs #2

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells (W)
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches (12)
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1.4 +/- Prevegetation pH 6.0

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 Straw/Hay 2 Tons/acre

Seed Mixtures

| Area I Seed Type | lbs/acre | Area II Seed Type | 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: David W Cann

Comments: preseed & mulch all cut area no less the 2 ton per acre maintain all E&S during operation

Title: oil & gas inspector Date: 3-27-84

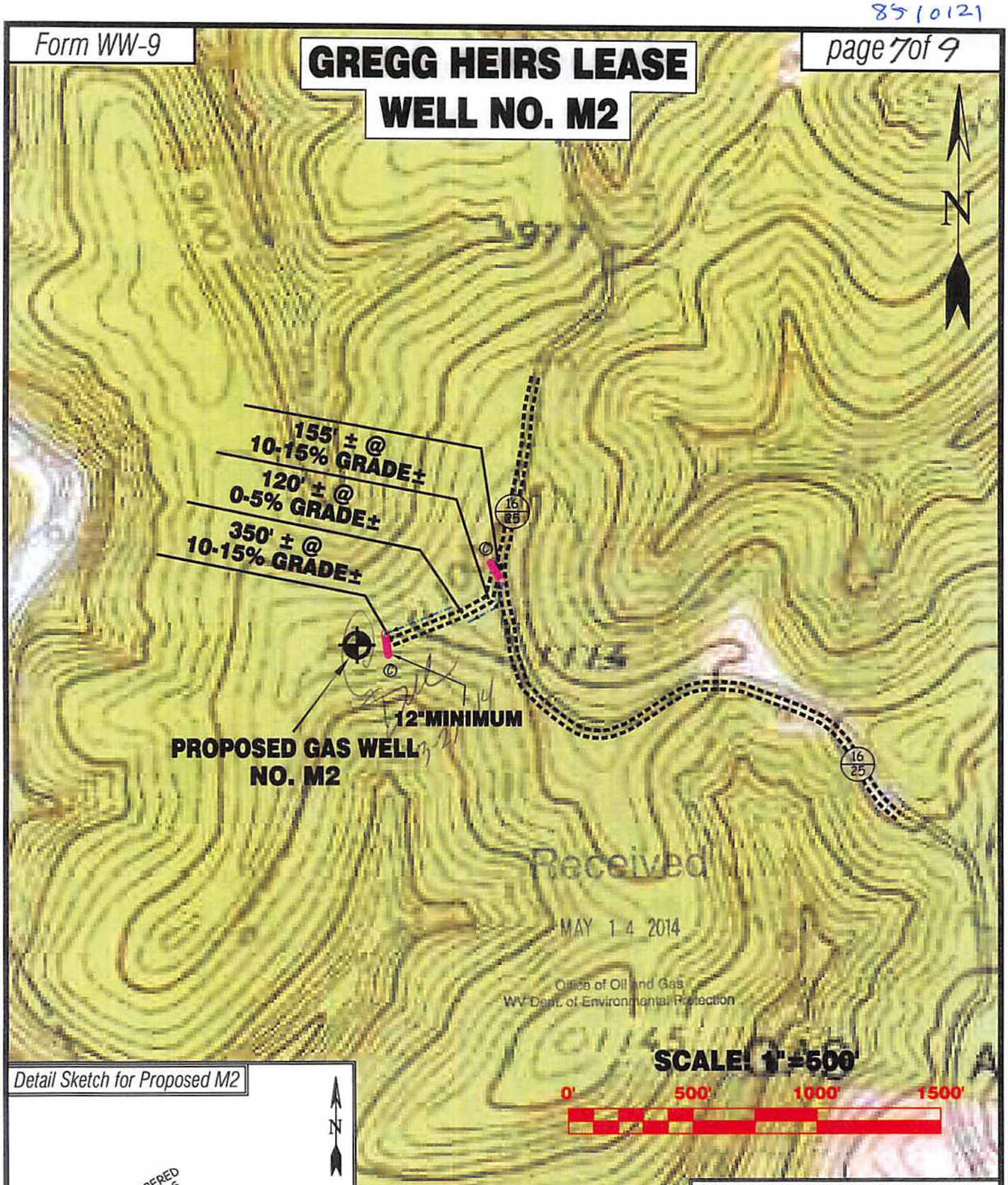
Field Reviewed? (✓) Yes ( ) No

85 10121

Form WW-9

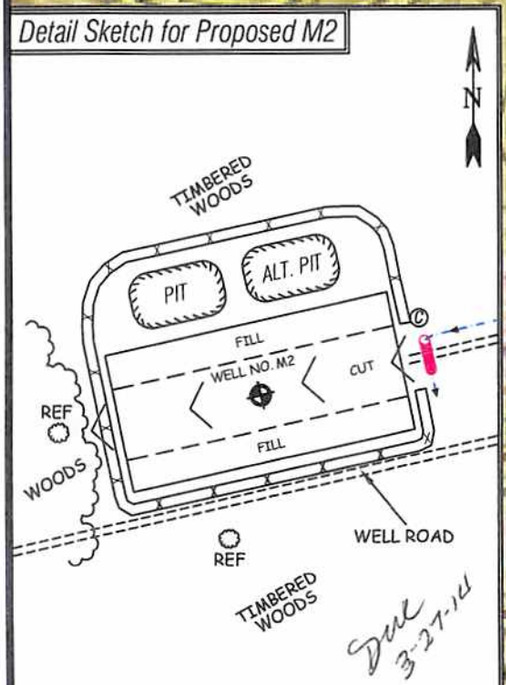


# GREGG HEIRS LEASE
# WELL NO. M2




Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Detail Sketch for Proposed M2




NOT TO SCALE

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. REGULATION. 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.

CUT & STACK ALL MARKETABLE TIMBER.

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL.

APPLICATIONS FOR SEPARATE PLC PERMITS ON THE ACCESS ROAD STREAM CROSSINGS HAVE BEEN PREPARED (IF APPLIES)

= EXISTING CULVERT

Ⓒ = PROPOSED CULVERT 15" MIN. UNLESS OTHERWISE NOTED

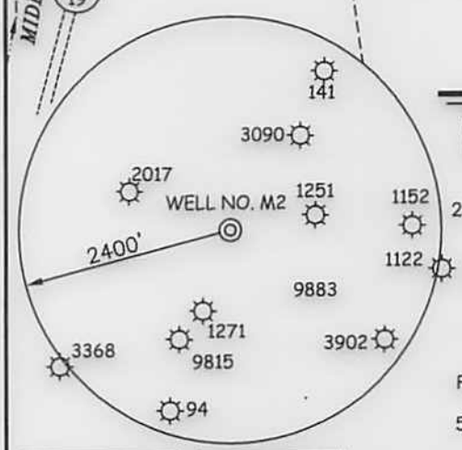
Ⓧ = PROPOSED STREAM CROSSING

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING
SURVEYORS PROJECT MGMT. SLS ENGINEERS ENVIRONMENTAL
P.O. Box 150 Glenville, WV 26351 (304) 462-5634
56093 Dilles Bottom Road Shadyside, OH 43947 (740) 671-9911
HONESTY, INTEGRITY, QUALITY

| DRAWN BY | FILE NO. | DATE | CADD FILE: |
|---|---|---|---|
| K.G.M. | 7427 | 02/24/14 | 7427RECM2.DWG |

FORM WW 6

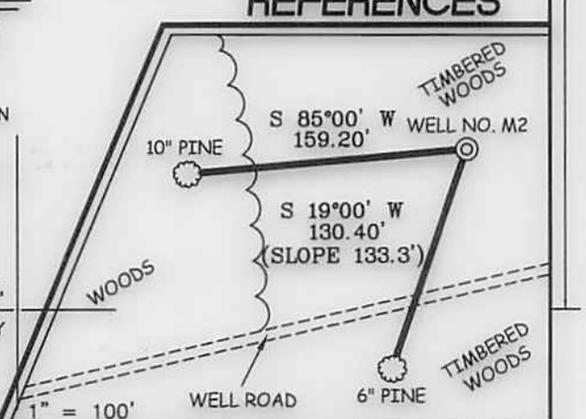
# GREGG HEIRS LEASE
# 77.25 ACRES±
# WELL NO. M2




## 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 02/19/14.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 283 PAGE 649.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2013.
5. WELL COORDINATES ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

## REFERENCES




SLS

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

GREGORY A. SMITH LICENSED No. 677 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE APRIL 11 , 20 14

OPERATORS WELL NO. GREGG HEIRS M2

API WELL NO. 47 — 85 — 10121
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 7427PMR2R2(497-13)

SCALE 1" = 500'

PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE)

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

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

LOCATION:

ELEVATION 1,083' WATERSHED MIDDLE FORK OF LEATHERBARK CREEK

DISTRICT MURPHY COUNTY RITCHIE QUADRANGLE SMITHVILLE 7.5'

SURFACE OWNER HEARTWOOD FORESTLAND FUND IV ACREAGE 102.25±

ROYALTY OWNER ZEDIE GREGG, ET AL LEASE ACREAGE 77.25±

PROPOSED WORK: LEASE NO. ___

DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___

PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION BEREA

ESTIMATED DEPTH 2,600'

COUNTY NAME

PERMIT

WELL OPERATOR MURVIN & MEIER OIL CO. DESIGNATED AGENT P. NATHAN BOWLES, JR.

ADDRESS P.O. BOX 396 ADDRESS P.O. BOX 1237

OLNEY, IL 62450 CHARLESTON, WV 25325

8510121

MURVIN & MEIER OIL CO.
Gas and Oil Producers
P.O. BOX 395 • 618-395-4405
OLNEY, IL 62450

J. B. MURVIN
1917-1996
D. W. MEIER

422 FRONT STREET
P.O. BOX 215
MARIETTA, OHIO 45750
PHONE: 740/374-5383
FAX: 740/374-3427

May 12, 2014

Attn: Justin E. Nottingham
State of West Virginia
Department of Environmental Protection
Office of Oil and Gas
601 57th Street SE
Charleston, West Virginia 25304

Re: Gregg Heirs M2, Ritchie County, West Virginia

Dear Justin:

Please find enclosed a New Well Application for the Gregg Heirs M2, together with our check in the amount of $650.00.

Smith Land Surveying is in the process of drafting our water sample information in the format in which it is required and I will be forwarding to you in the near future.

Following your review, in the event you have any questions or require additional information, please contact me at 618-395-4405, or katieb@murvinandmeier.com.

Best regards,

Kate M. Blackford
Executive Vice-President

Enclosures

Received
MAY 14 2014
Office of Oil and Gas
WV Dept. of Environmental Protection