



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

September 08, 2015

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-8510245, 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: M2

Farm Name: CAMPBELL, JOSEPH E. & DORIS

API Well Number: 47-8510245

Permit Type: Vertical Well

Date Issued: 09/08/2015

Promoting a healthy environment.

09/11/2015

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. 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.

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 Murphy Smithville 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: H. Evans M2 3) Elevation: 1104

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

5) Proposed Target Formation(s): Warren thru Rhinestreet Proposed Target Depth: 6250

6) Proposed Total Depth: 6250 Feet Formation at Proposed Total Depth: Shale

7) Approximate fresh water strata depths: 20' (Permit # 9871)

8) Approximate salt water depths: None (Permits # 1109, 9871) Plat: Rhinestreet Formation

9) Approximate coal seam depths: None (Permits 1109, 9871)

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

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

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Drill and Complete New Well

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	16"		32	20	20	
Fresh Water	11 3/4"	A-500	32	300	300	CTS
Coal						
Intermediate	8 5/8"	J-55 API	24	2016	2016	CTS
Production	4 1/2"	WT65	10.5	6225	6225	550
Tubing						
Liners						

Received
Office of Oil & Gas

AUG 19 2015

[Signature]
7-8-15

Packers: Kind: _____
Sizes: _____
Depths Set _____

WW-2A
(Rev. 6-14)

1). Date: July 15, 2015
2.) Operator's Well Number Harrison-Evans M2
State County Permit
3.) API Well No.: 47- 085

**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 Joseph and Doris Campbell ✓ Address 261 Hillsdale Circle ✓ Scott Depot WV 25560
(b) Name _____ Address _____
(c) Name _____ Address _____
5) (a) Coal Operator Name n/a Address _____
(b) Coal Owner(s) with Declaration Name _____ Address _____
(c) Coal Lessee with Declaration Name none Address _____
6) Inspector David Cowan Address Route 1 Box 202 Harrisville WV 26362 Telephone 304-389-3509

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.

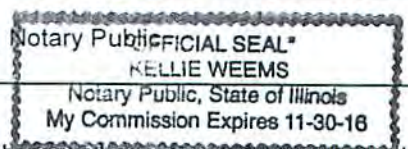
I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Murvin & Meier Oil Co.
By: Katie M. Blackful
Its: Executive Vice-President
Address: P. O. Box 396
Olney IL 62450
Telephone: 618-395-4405
Email: katieb@murvinandmeier.com

Received
Office of Oil & Gas
AUG 19 2015

Subscribed and sworn before me this 15th day of July, 2015

Kellie Weems
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

09/11/2015

SURFACE OWNER WAIVER

County Ritchie Operator Murvin & Meier Oil Co.
Operator well number Harrison-Evans M2

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure a adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Joseph K. Campbell Date 7-29-15
Signature

Company Name _____
By _____
Its _____ Date _____

JOSEPH K. CAMPBELL
Print Name

Signature Date

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Ritchie

Operator Murvin & Meier Oil Co.
Operator well number Harrison-Evans M2

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Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

 Joseph L. Campbell Date 7-29-15
Signature

Company Name _____
By _____
Its _____ Date _____

Print Name

Signature _____ Date _____

0510245

WW-2A1
(Rev. 1/11)

Operator's Well Number Harrison-Evans 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
Harrison Evans et ux	Clem S. Morris	1/8th	80 / 24
Clem S. Morris	Beall / Bishop Oil & Gas	Assignment	224 / 524
Beall / Bishop Oil & Gas	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

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:
By: Its:

Murvin & Meier Oil Co.
Kate M. Blackford
Kate M. Blackford, Executive Vice-President

Received
Office of Oil & Gas

AUG 19 2015

09/11/2015

8510245

WW-2B1
(5-12)

Well No. H. Evans 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 Laboratories
Sampling Contractor Smith Land Surveying, Inc.

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.

There appears to be one +/- potable water source within 1500' therefore tests will be offered and samples taken as required.

Received
Office of Oil & Gas
AUG 19 2015

09/11/2015



WELL INFORMATION AND POTENTIAL WATER WELL SAMPLE DATA SHEET

OPERATOR: Murvin & Meler Oil Company
LEASE NAME AND NUMBER: Harrison Evans 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: Hickwood Foreland 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 43, Parcels 6, 7, 19 and 26
Letter of refusal signed 5/29/14

Site: 2 Spacing _____ Owner/Occupant: Mark and Gladys Parker
 Address: 44 Silos Williamstown, WV 26187 Ph: _____
 Field Contact Date: _____ Sampled: No Date Sampled: _____ Source: Unknown
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) 08/05/2015
 Comments: Tax Map 43, Parcels 8 and 8.1
No response to certified letter as of 7/7/14

Site: 3 Spacing _____ Owner/Occupant: Joseph and Doris Campbell
 Address: 26 Hillside Circle Scott Depot, WV 25560 Ph: _____
 Field Contact Date: N/A Sampled: No Date Sampled: N/A Source: Unknown
 If No, declined by who Joseph Campbell Letter/Notice Date: 1st N/A 2nd N/A Certified (3rd) 5/27/14
 Comments: Tax Map 43, Parcels 18, 24, 25 and 30
Letter of refusal signed 6/2/14

Site: 4 Spacing _____ Owner/Occupant: Mike Ross Inc.
 Address: P.O. Box 219 Coalton, WV 26257 Ph: Unknown
 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
Letter of refusal signed 08/19/15

Site: 5 Spacing 1560' Owner/Occupant: Murvin And Meier Oil Company
 Address: 1102 North East Street P. O. Box 396 Olney, Illinois 62450 Ph: (618)-395-4405
 Field Contact Date: 8/07/15 Sampled: Yes Date Sampled: 8/07/15 Source: Creek
 If No, declined by who _____ Letter/Notice Date: 1st N/A 2nd N/A Certified (3rd) N/A
 Comments: Lat: 39°01' 57"
Long: 81°04' 33"
Murvin and Meier is not the land owner but has requested that the creek be sampled.

Site: 6 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Sampled: _____ Date Sampled: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____

Site: 7 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Sampled: _____ Date Sampled: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____

Site: 8 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Sampled: _____ Date Sampled: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____

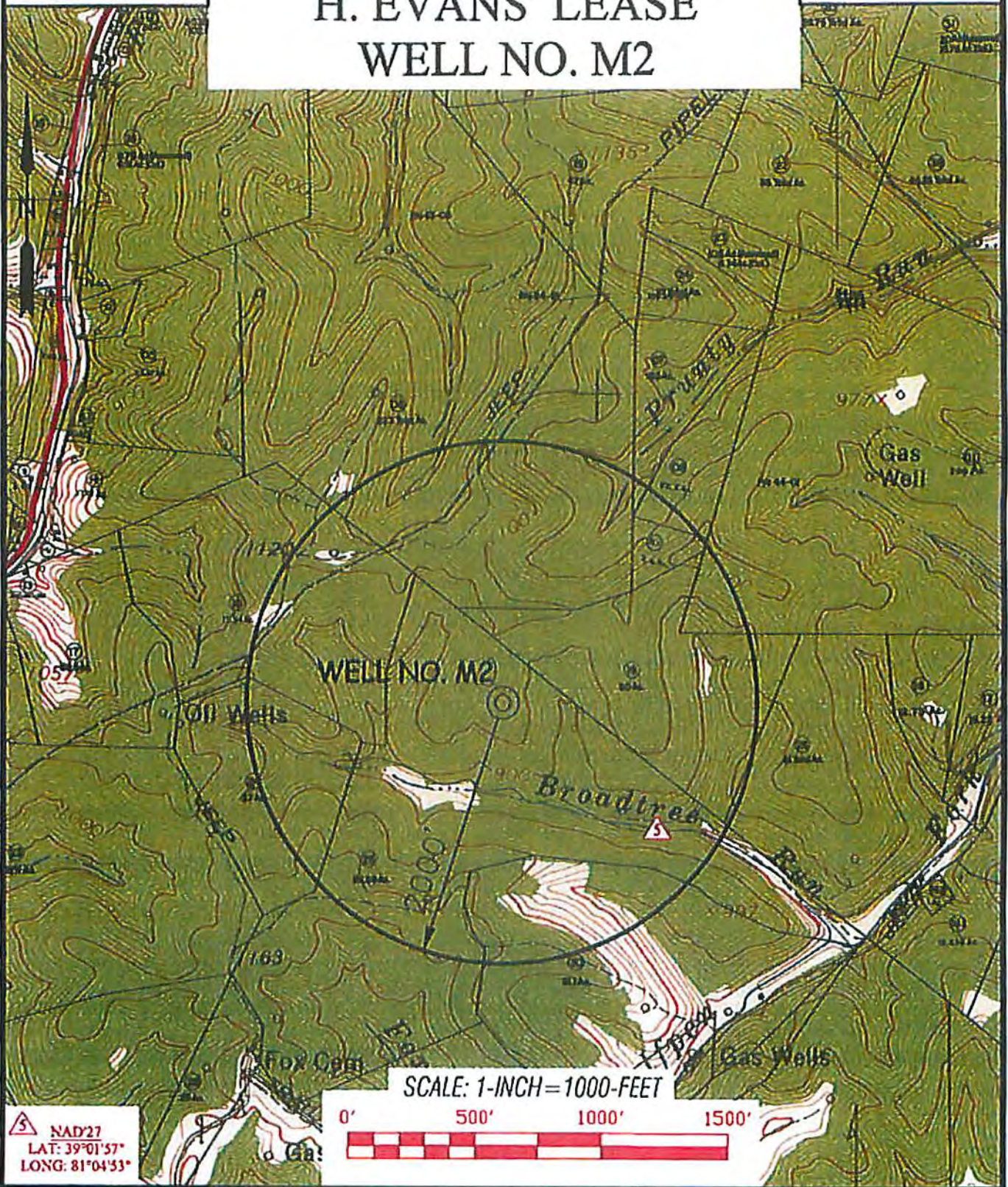
Site: 9 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Sampled: _____ Date Sampled: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____


Site: 10 Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Sampled: _____ Date Sampled: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____

WATER SAMPLES

page of

H. EVANS LEASE WELL NO. M2




 NAD27
 LAT: 39°01'57"
 LONG: 81°04'53"

SCALE: 1-INCH=1000-Feet

0' 500' 1000' 1500'



Professional Energy Consultants
 a Division of SLS
 SLS
 1200 West 10th Street
 Oklahoma City, Oklahoma 73106
 Phone: (405) 948-8800
 Fax: (405) 948-8801
 www.slsenergy.com

TOPO SECTION OF:
 SMITHVILLE, WV 7.5' QUAD.

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

DRAWN BY K.D.W.	FILE NO 7370	DATE 08-14-15	CADD FILE 7370cs2d.dwg
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DISTRICT	COUNTY	TAX MAP-PARCEL NO.
MURPHY	RITCHIE	43-25

8510245

From:

08/18/2015 21:30

#148 P.001



To Whom It May Concern:

Smith Land Surveying, Inc. of Glenville, WV has been contracted by:

Murvin & Meier Oil Co.

To do some preliminary work for a proposed oil and gas well permit application.

Due to 1994 regulations set by the State of West Virginia Division of Environmental Protection, Department of Oil and Gas, operators are required to offer water testing for water wells or other non-public water sources that fall within 1500 feet of the proposed well. The operator is testing within 2000 feet of the well, if they are requested to do so by the resident or owner. This test will only help ensure the water quality control, which in turn benefits you as the resident or landowner.

Since your residence falls within the 2000 foot radius, you are entitled to have your potable water source(s) sampled and analyzed at an independent lab. Your lab analysis results would then be mailed to your home. This is done at no expense to you.

Please notify Smith Land Surveying immediately if you are interested in having your potable water tested. Please have this letter with you at the time of contact so that the client and well number may be referenced.

Thank you for your cooperation in this matter. I look forward to hearing from you at your earliest convenience. If you have any questions, please feel free to contact me at:

Smith Land Surveying, Inc.
PO Box 150
Glenville, WV 26351

Date: 8/5/15

Left/sent by: Daniel McKee

(304) 462-5634 (voice)
(304) 462-5656 (fax)
E-Mail DMoKee@slssurveys.com

Well Number: H. Evans M2

Site Number: TM 44 PAR 1

*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your Water well/spring/or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Signature: Timothy Ross Date: 8-18-15

09/11/2015

RECEIVED JUN 0 3 2014



To Whom It May Concern:

Smith Land Surveying, Inc. of Glenville, WV has been contracted by:

Murvin and Meier

To do some preliminary work for a proposed oil and gas well permit application.

Due to 1994 regulations set by the State of West Virginia Division of Environmental Protection. Department of Oil and Gas, operators are required to offer water testing for water wells or other non-public water sources that fall within 1500 feet of the proposed well. The operator is testing within 2500 feet of the well, if they are requested to do so by the resident or owner. This test will only help ensure the water quality control, which in turn benefits you as the resident or landowner.

Since your residence falls within the 2500 foot radius, you are entitled to have your potable water source(s) sampled and analyzed at an independent lab. Your lab analysis results would then be mailed to your home. This is done at no expense to you.

Please notify Smith Land Surveying immediately if you are interested in having your potable water tested. Please have this letter with you at the time of contact so that the client and well number may be referenced.

Thank you for your cooperation in this matter. I look forward to hearing from you at your earliest convenience. If you have any questions, please feel free to contact me at:

Smith Land Surveying, Inc.
PO Box 150
Glenville, WV 26351
(304) 462-5634 (voice)
(304) 462-5656 (fax)
E-Mail DMcKee@slssurveys.com

Date: 5/27/14

Left/sent by: Daniel McKee

Well Number: H. Evans #M-2
Tax Map, Parcel: 43, Parcels 18, 24, 25, 30
Ritchie County, WV Murphy District

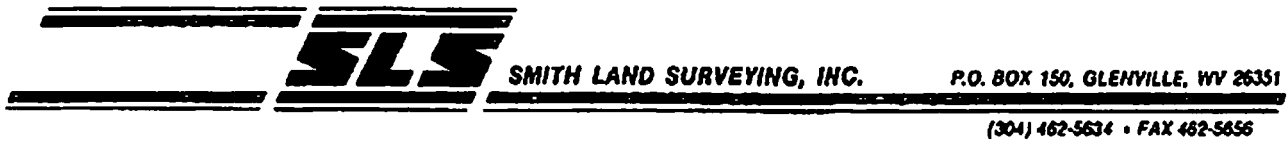
*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your Water well/spring/or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Signature:

Date:

June 2, 2014



To Whom It May Concern:

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Murvin and Meier

To do some preliminary work for a proposed oil and gas well permit application.

Due to 1994 regulations set by the State of West Virginia Division of Environmental Protection, Department of Oil and Gas, operators are required to offer water testing for water wells or other non-public water sources that fall within 1500 feet of the proposed well. The operator is testing within 2500 feet of the well, if they are requested to do so by the resident or owner. This test will only help ensure the water quality control, which in turn benefits you as the resident or landowner.

Since your residence falls within the 2500 foot radius, you are entitled to have your potable water source(s) sampled and analyzed at an independent lab. Your lab analysis results would then be mailed to your home. This is done at no expense to you.

Please notify Smith Land Surveying immediately if you are interested in having your potable water tested. Please have this letter with you at the time of contact so that the client and well number may be referenced.

Thank you for your cooperation in this matter. I look forward to hearing from you at your earliest convenience. If you have any questions, please feel free to contact me at:

Smith Land Surveying, Inc.
PO Box 150
Glenville, WV 26351
(304) 462-5634 (voice)
(304) 462-5656 (fax)

Date: 5/15/14

Left/sent by: Daniel McKee

E-Mail DMcKee@slssurveys.com

Well Number: H.Evans#m-2
Tax map, Parcel#: 43-6, 7, 19 and 26

Tract 6014

~~Taylor County, WV - Flemington District~~

Article County

*If you do not have a water well or other non-public water source, please make note of it and include your name and address when you return this sheet.

If you do not feel the need to have your Water well/spring/or other non-public water source sampled, please sign on the line below and return to the above address. This will signify that a sample has been offered to the surface owner and has been declined.

Signature: [Handwritten Signature]

Date: 5-24-14



Reliance Laboratories, Inc.
2044 Meadowbrook Road | P.O. Box 4657
Bridgeport, WV 26330
Phone: 304 842 5285 | Fax: 304 842 5351

Martinsburg Laboratory
Ridgefield Business Center | 25 Crimson Circle
Martinsburg, WV 25403
Phone: 304 596 2084 | Fax: 304 596 2085

Certifications: WV Department of Health # 00354, 00443 | WV Department of Environmental Protection # 156, 151
MD Department of Environment # 335, 337 | US Environmental Protection Agency # WV00042, WV00901

SMITH LAND SURVEYING, INC.
P.O. BOX 150

Tuesday, August 25, 2015
Page 2 of 2

GLENNVILLE, WV 26351

Lab Number: 235149-2015-DW Sample ID: (7370) H EVANS

Parameter	Value	Units	Method	Date/Time Analyzed	Analyst	MRL	MCL
Analyte Group: Inorganics							
E coli (Chromogenic)	PRESENT		SM9223B-97	8/7/2015	13 05 MC		
Total Coliform (Chromogenic)	PRESENT		SM9223B-97	8/7/2015	13 05 MC		
pH	# 7.84	S U	SM4500H+B-00	8/11/2015	14 55 KV		
Total Alkalinity	56.6	mg CaCO3/l	SM2320B-97	8/11/2015	14 59 KV	2	
Total Chloride	6.28	mg/l	EPA 300.0 R2.1	8/12/2015	22 18 MC	0.15	[250]
Total Dissolved Solids	86	mg/l	SM2540C-97	8/11/2015	10 15 JL	10	[500]
Total Organic Carbon	1.72	mg/l	SM5310C-00	8/10/2015	9 29 MC	0.1	
Total Surfactant	ND	mg/l	SM5540C-00	8/7/2015	13 45 TM	0.2	[0.5]
Turbidity	5.60	N.T.U.	SM2130B-01	8/7/2015	15 30 JL	0.22	
Total Aluminum	0.15	mg/l	EPA 200.7 R4.4	8/12/2015	11 05 TH	0.04	[0.05]
Total Barium	0.12	mg/l	EPA 200.7 R4.4	8/12/2015	11 05 TH	0.05	2.0
Total Iron	0.18	mg/l	EPA 200.7 R4.4	8/12/2015	11 05 TH	0.01	[0.3]
Total Manganese	0.06	mg/l	EPA 200.7 R4.4	8/12/2015	11 05 TH	0.01	[0.05]

Remarks: #Holding time exceeded for this analysis

Date Sample Collected: 5/7/2015 11:00
Sample Submitted By: D MCFEE
Date Sample Received: 5/7/2015 12:45

Sample Temp. upon receipt: 22.1 Deg C

ND = Not Detected at the MQL or MRL

MDL - Minimum Detectable Limit

MRL - Minimum Reporting Limit

MCL - Maximum Contaminant Level, USEPA Regulated

[MCL] = Maximum Contaminant Level, Non-Regulated

*Method Code: STANDARD METHODS ONLINE ED; US EPA METHODS FOR THE CHEMICAL ANALYSIS OF WATER AND WASTES, Rev. 83; US EPA METHODS FOR THE DETERMINATION OF METALS IN ENVIRONMENTAL SAMPLES, May 1994; TEST METHODS FOR EVALUATING SOLID WASTE, SW-846, 3rd ED; USEPA Manual for Certification of Laboratories Analyzing Drinking Water, 5th ED. In accordance with EPA Regulations, all reports, including raw data and quality control data, are maintained by the laboratory for a minimum of 6 years.

NOTE: This sample does not meet standards set for Total Coliform and E. Coli by the State of West Virginia, 6A-3-10. Code of State Regulations, adopted July 1, 2002 by the Bureau For Public Health. Sample Analyzed by Certified Laboratory #00354CM and #0044

NOTE: ND or Not Detected indicates that the analytical value obtained is below the minimum reportable limit (MRL) which is equivalent to the lowest standard utilized in preparation of the method calibration curve.

NOTE: Sample temperature upon receipt exceeds 10 degrees C.

RLI



SITES

8510245

2510245

WW-9
(2/15)

API Number 47 - 085 -
Operator's Well No. H. Evans M2

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Musvin and Meier Oil Co OP Code 307980
Watershed (HUC 10) Broadtree Run Quadrangle Smithville 7.5'

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: Drill Water formation cuttings, Frac blow back

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

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? If so, describe: No

Drilling medium anticipated for this well (vertical and horizontal)? 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? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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.

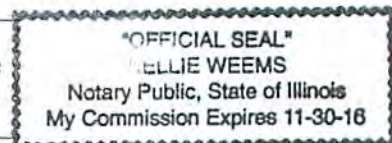
Company Official Signature Kate M Blackford
Company Official (Typed Name) Kate M. Blackford
Company Official Title Exec. Vice-President

Received
Office of Oil & Gas
AUG 19 2015

Subscribed and sworn before me this 15th day of July, 20 15

Kellie Weems Notary Public

My commission expires 11/30/16



09/11/2015

Proposed Revegetation Treatment: Acres Disturbed 1.5 +/- Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20

Fertilizer amount 1/3 Ton ~~45~~/acre

Mulch Hay/Straw 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>KY-31</u>	<u>40</u>	<u>Orchard Grass</u>	<u>15</u>
<u>Alsike Clover</u>	<u>5</u>	<u>Alsike Clover</u>	<u>5</u>
<u>Annual Rye</u>	<u>15</u>		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: preserve mulch, all cut area no less than 2 rows per acre maintain all E&S during operation

Title: air gas inspector Date: 7-8-15

Field Reviewed? () Yes () No

Proposed Revegetation Treatment: Acres Disturbed 1.5 +/- Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH _____

Fertilizer type 10-20-20

Fertilizer amount 1/3 Ton ~~1/2~~ /acre

Mulch Hay/Straw 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>KY-31</u>	<u>40</u>	<u>Orchard Grass</u>	<u>15</u>
<u>Alsike Clover</u>	<u>5</u>	<u>Alsike Clover</u>	<u>5</u>
<u>Annual Rye</u>	<u>15</u>		

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Danf Burton

Comments:

proceed with mulch, all cut area no less than 2 ton per acre maintain all G&S during operation

Title: air gas separator

Date: 7-8-15

Field Reviewed?

Yes

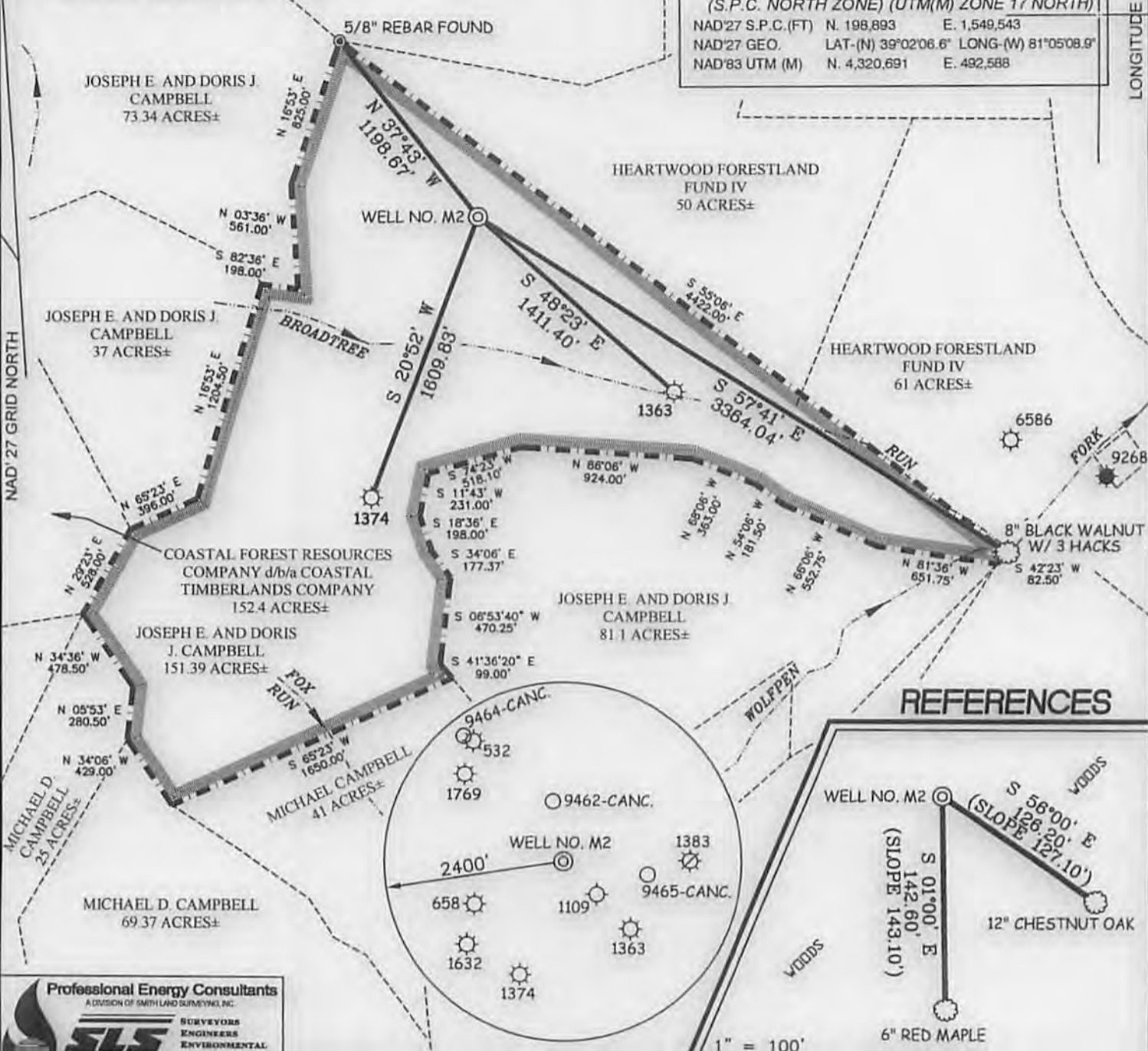
No

NOTES ON SURVEY

- 1. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 04-06-14.
- 2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 279 PAGE 769.
- 3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2014.

HEARTWOOD FORESTLAND
FUND IV
223 ACRES±

H. EVANS LEASE
151 ACRES±
WELL NO. M2
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD'27 S.P.C.(FT) N. 198,893 E. 1,549,543
NAD'27 GEO. LAT-(N) 39°02'06.6" LONG-(W) 81°05'08.9"
NAD'83 UTM (M) N. 4,320,691 E. 482,588



REFERENCES



Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING, INC.
SLS
SURVEYORS
ENGINEERS
ENVIRONMENTAL
PROJECT MGMT.
(304) 482-8834 WWW.SLSURVEYS.COM

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 MAY 14, 20 14
UPDATED JUNE 15, 20 15
OPERATORS WELL NO. M2
API WELL NO. 47-085-10245
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7370PM2 (497-59)
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

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 1104' WATERSHED BROADTREE RUN
DISTRICT MURPHY COUNTY RITCHIE QUADRANGLE SMITHVILLE 7.5'

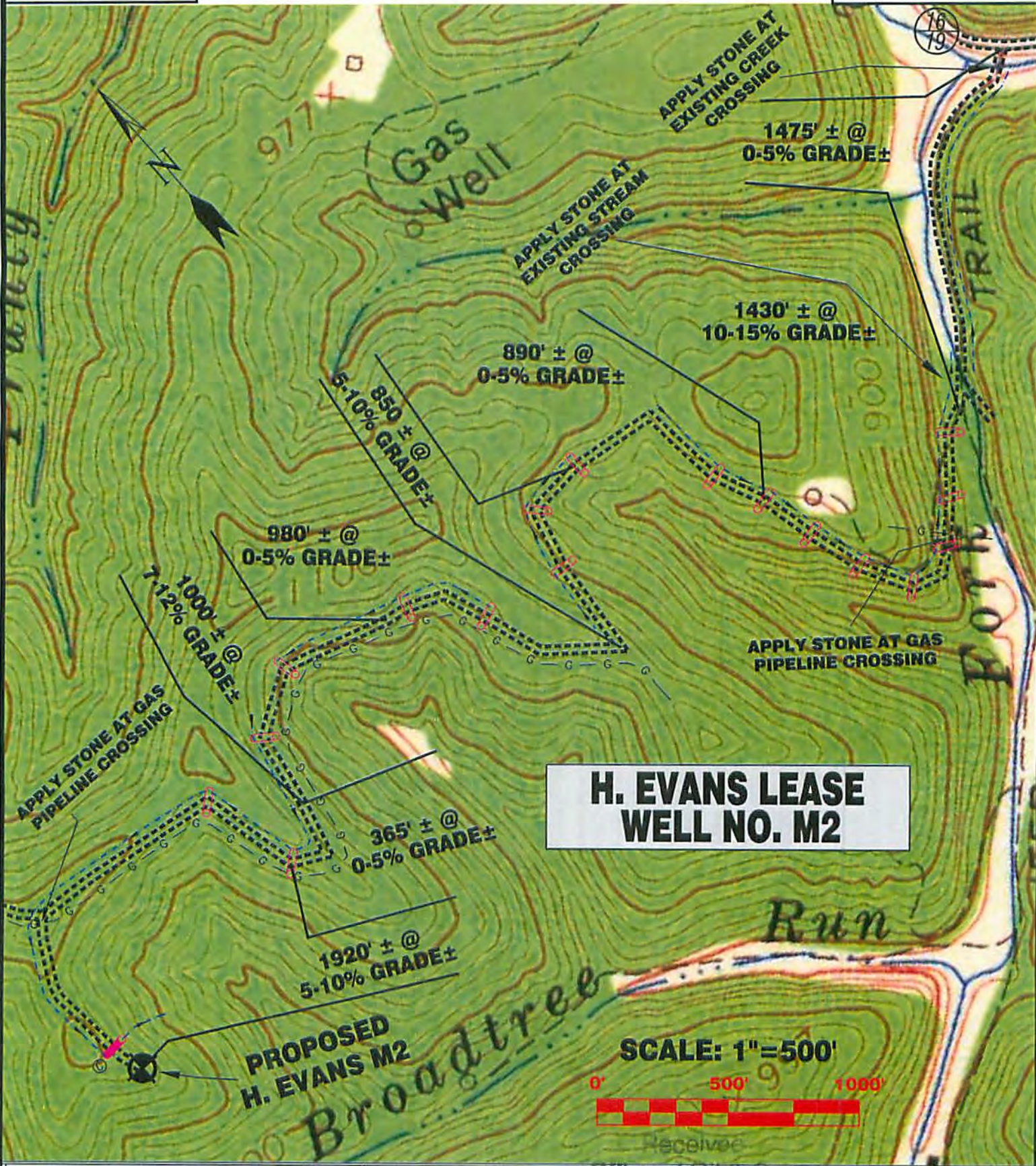
SURFACE OWNER JOSEPH E. & DORIS J. CAMPBELL ACREAGE 151.39±
ROYALTY OWNER P. EVANS, ET AL LEASE ACREAGE 151± LEASE NO. 09/11/2015

PROPOSED WORK: 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 RHINESTREET
ESTIMATED DEPTH 6,300'

WELL OPERATOR MURVIN AND MEIER OIL COMPANY DESIGNATED AGENT P. NATHAN BOWLES, JR.
ADDRESS P.O. BOX 396 ADDRESS P.O. BOX 1237
OLNEY, IL 62450 CHARLESTON, WV 25325

COUNTY NAME
PERMIT

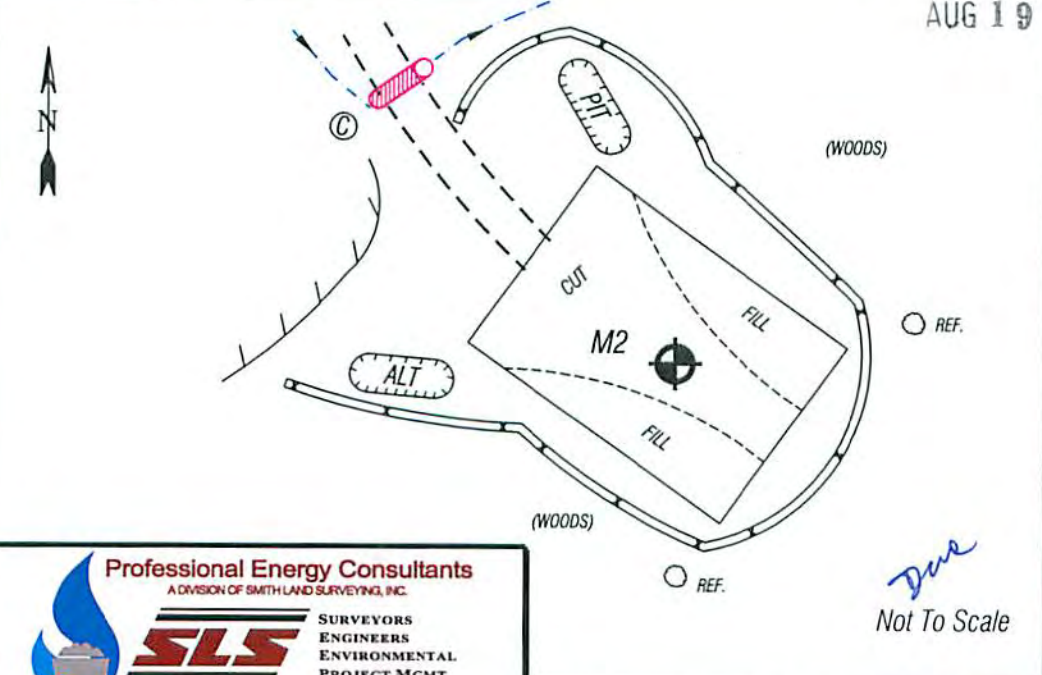


**H. EVANS LEASE
WELL NO. M2**

SCALE: 1"=500'



Detail Sketch for Proposed Well NO. M2



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. LAND 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).

09/11/2015

- = EXISTING CULVERT
- = PROPOSED CULVERT 12" MIN. UNLESS OTHERWISE NOTED
- = PROPOSED STREAM CROSSING
- = APPROXIMATE LIMITS OF DISTURBANCE

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TOPO SECTION OF SMITHVILLE 7.5' USGS TOPO QUADRANGLE