



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

August 12, 2014

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-8510145, 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: NATHAN REED #1
Farm Name: DIFILIPPO, DENNIS N. & DEBRA
API Well Number: 47-8510145
Permit Type: Vertical Well
Date Issued: 08/12/2014

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 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.

WW - 2B
(Rev. 8/10)

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

85 3 612

1) Well Operator Murvin and Meier Oil Co. 307980 Ritchie Murphy Smitbille 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Nathan Reed #1 3) Elevation: 1186

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: 6420

6) Proposed Total Depth: 6420 Feet Formation at Proposed Total Depth: Shale

7) Approximate fresh water strata depths: 0' (Permit #B742)

8) Approximate salt water depths: None (Permit #B742)

9) Approximate coal seam depths: None (Permit #B742)

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			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft			
Conductor	16"		32	20	20	
Fresh Water	11 3/4	A-500	32	300	300	CTS
Coal						
Intermediate	8 5/8	A-500	23	2090	2090	CTS
Production	4 1/2	WT-65	10.5	6400	6400	600
Tubing				Received		
Liners						

Packers: Kind
Sizes
Depths Set

JUL 21 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

Drill
4-21-14

WW-2A
(Rev. 6-07)

1). Date: 5/7/2014
2.) Operator's Well Number Nathan Reed
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: 5) (a) Coal Operator
(a) Name Dennis N. and Debra L. DiFilippo Name _____
Address 4924 MacCorkle Ave. SW Address _____
Charleston, WV 25309-1216
(b) Name _____ (b) Coal Owner(s) with Declaration
Address _____ Name _____
Address _____
(c) Name _____ Name _____
Address _____ Address _____
6) Inspector Mr. David Cowan (c) Coal Lessee with Declaration
Address Route 1 Box 202 Name _____
Harrersville, WV 26362 Address _____
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 11 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

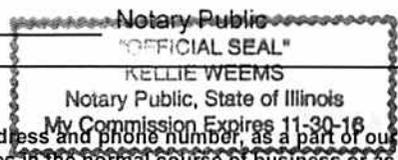
JUL 21 2014

Office of Oil and Gas
West Virginia Department of Environmental Protection

Well Operator Murphy and Meigs Oil Co
By: Kelli Weems
Its: Exec-Vice-Pres.
Address PO Box 396
Olney Illinois 62450
Telephone 618-395-4405
Subscribed and sworn before me this 7th day of May, 2014

My Commission Expires 11/30/16
Oil and Gas Privacy Notice

Kellie Weems



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

**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
<i>Nathan Reed et ux</i>	<i>South Penn Oil Co.</i>	<i>1/8</i>	<i>33/523</i>
<i>South Penn Oil Co.</i>	<i>Skyles Oil Corp.</i>		<i>87/197</i>
<i>Skyles Oil Corp.</i>	<i>Bowser Gas and Oil Co.</i>		<i>99/309</i>
<i>Bowser Gas and Oil Co.</i>	<i>Megan Oil & Gas Co, Inc.</i>		<i>191/546</i>
<i>Megan Oil & Gas Co, Inc.</i>	<i>Murvin & Meier Oil Co.</i>		<i>254/147</i>

**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

JUL 21 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: *Rate M. Blackford*
 Its: *Rate M. Blackford, Exec. Vice-Pres.*

WW-2B1
(5-12)

Well No. Nathan Reed #1

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
Sampling Contractor

Reliance Labs
Smith Land Surveying, Inc - Environmental Division

Well Operator Murvin & Meier Oil Co.

Address 1102 North East Street, 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.

Received

JUL 21 2014



SMITH LAND SURVEYING, INC.

P.O. BOX 150, GLENVILLE, WV 26351

(304) 482-6634 • FAX 482-6666

WELL INFORMATION AND POTENTIAL WATER WELL SAMPLE DATA SHEET

OPERATOR: Murvin & Meier Oil Company
LEASE NAME AND NUMBER: Nathan Reed #1

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: John Edgar Frederick Trust
 Address: 2969 Lindale Dr Akron, OH 44312 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 45,46 and 49; Tax Map 49, Parcel 3
Letter of refusal signed 5/27/14

Site: 2 Spacing _____ Owner/Occupant: Dennis N & Debra L Difilippo
 Address: 4924 MacCorkle Ave. SW South Charleston, WV 26309 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 47; Tax Map 45, Parcel 36; Tax Map 49, Parcels 4 and 6

Site: 3 Spacing _____ Owner/Occupant: Hearthwood 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 49, Parcels 30 and 31
Letter of refusal signed 5/29/14

Site: 4 Spacing _____ Owner/Occupant: Thomas Adkins / John Butcher
 Address: 11 Bogus ALY, Logan, WV 25601 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 49, Parcel 5

Received

JUL 21 2014

Site: 5 Spacing _____ Owner/Occupant: Lizzie and Terry Barron
 Address: P.O. Box 4383 Charleston, WV 26304 Ph: (304)-744-9333
 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 49, Parcel 10

Site: *6 Spacing 2778' Owner/Occupant: Harvey H & Lavada L Williamson
 Address: P.O. Box 177 Smithville, WV 26178 Ph: (304)-299-4240
 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 49, Parcel 11
Northing: 39° 00' 48"
Easting: 81° 02' 37"

Site: 7 Spacing _____ Owner/Occupant: Angela and Jeff Campbell
 Address: 948 Lost Ridge RD. Big Springs, WV 26137 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 49, Parcel 32

Site: *8 Spacing 1924' Owner/Occupant: Angela Jones and Gregory Crew
 Address: P.O. Box 132 Smithville, WV 26178 Ph: (304)-349-5708
 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 49, Parcel 32.1
Northing: 39° 00' 58"
Easting: 81° 02' 04"

Site: 9 Spacing _____ Owner/Occupant: James Barnett and Emert Ellis Jr.
 Address: RR Box 537 Pecks Mill, WV 25547 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 49, Parcel 33

Site: *10 Spacing 2474' Owner/Occupant: Ronnie Hannah
 Address: 940 Lost Ridge RD. Big Springs, WV 26137 Ph: (304)-354-9058
 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 49, Parcel 34
Northing: 39° 00' 45"
Easting: 81° 02' 23"

Received

JUL 21 2014

Site: *11 Spacing 3182' Owner/Occupant: Ronnie Hannah
 Address: 940 Lost Ridge RD. Big Springs, WV 26137 Ph: (304)-354-9058
 Field Contact Date: 6/1/14 Sampled: Yes Date Sampled: 6/1/14 Source: Spring
 If No, declined by who _____ Letter/Notice Date: 1st N/A 2nd N/A Certified (3rd) 5/21/14
 Comments: Tax Map 49, Parcel 34
Northing: 39° 00' 45"
Easting: 81° 02' 09"

Site: _____ 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: _____ 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: _____ 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: _____

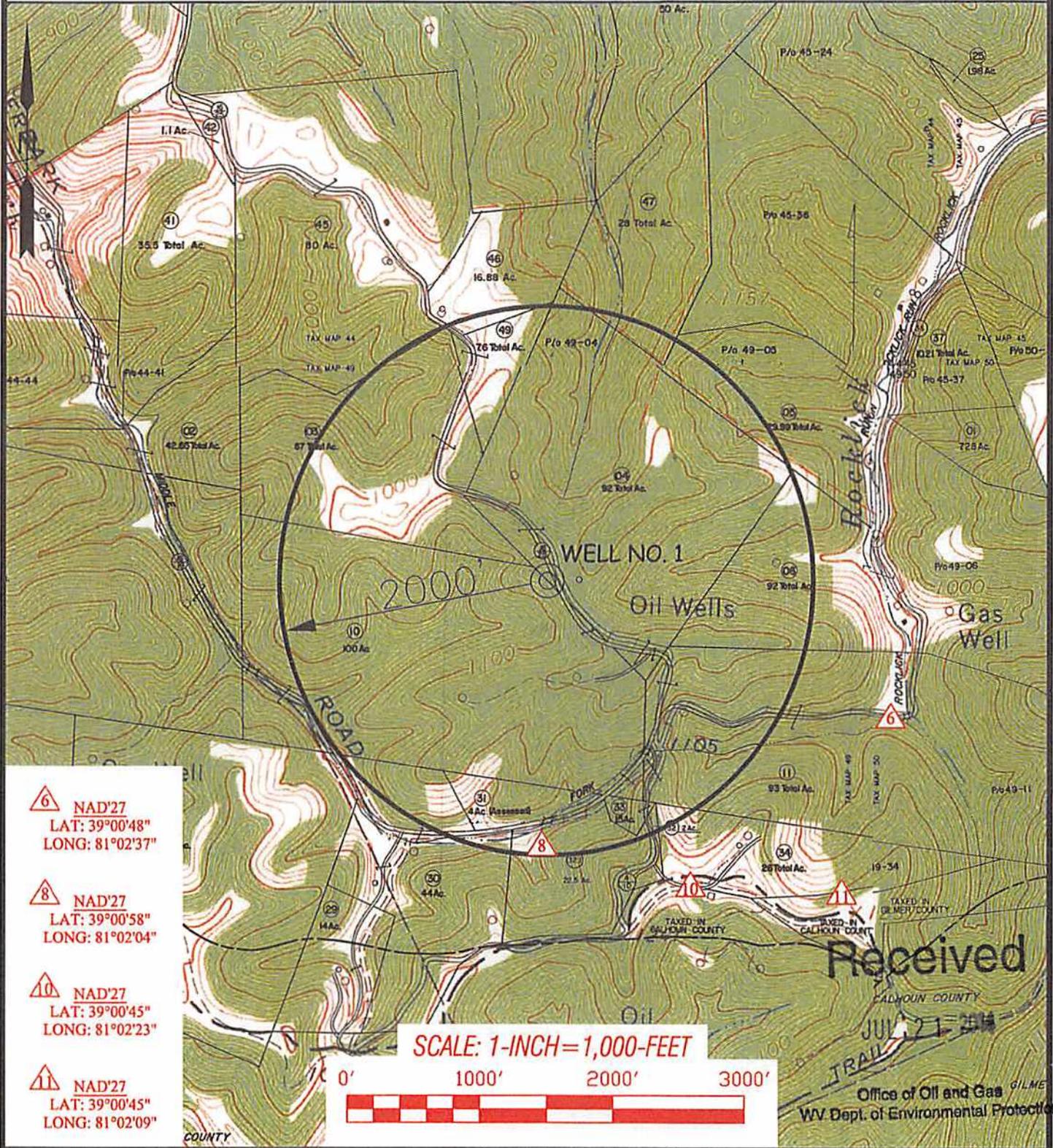
Site: _____ Spacing _____ Owner/Occupant: _____
 Address: _____ Ph: _____
 Field Contact Date: _____ Sampled: _____ Date Sampled: _____ Source: _____
 If No, declined by who _____ Letter/Notice Date: 1st _____ 2nd _____ Certified (3rd) _____
 Comments: _____

Site: _____ 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: _____

Received

JUL 21 2014

NATHAN REED LEASE WELL NO. 1



6 NAD'27
LAT: 39°00'48"
LONG: 81°02'37"

8 NAD'27
LAT: 39°00'58"
LONG: 81°02'04"

10 NAD'27
LAT: 39°00'45"
LONG: 81°02'23"

11 NAD'27
LAT: 39°00'45"
LONG: 81°02'09"

SCALE: 1-INCH=1,000-FEET



Received

JUL 21 2014
Office of Oil and Gas
WV Dept. of Environmental Protection

Professional Energy Consultants
A DIVISION OF SMITH LAND SURVEYING

Surveyors
PROJECT MAN: **SLS** ENGINEERS
ENTHUSIASTIC

1000 Green Station Road
Martinsburg, WV 26157
(304) 871-8911

WV REG. NO. 10
SINCE 1974
2014 REG. NO. 10

WV REG. NO. 10
SINCE 1974
2014 REG. NO. 10

DRAWN BY: K.D.W. FILE NO. 7774 DATE 06/16/14 CADD FILE: 7774NS1R2.DWG

TOPO SECTION OF:
SMITHVILLE, WV 7.5' QUAD.

DISTRICT	COUNTY	TAX MAP-PARCEL NO.
MURPHY	RITCHIE	49-4

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

WW-9
(5/13)

Page 4 of 11
API Number 47 - 085 -
Operator's Well No. Nathan Reed #1

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 1186 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.? 20 to 10 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 _____)

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
Company Official Title Exec. Vice-President

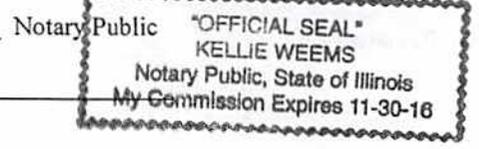
Received

JUL 21 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

Subscribed and sworn before me this 7th day of May, 20 14

Kellie Weems



My commission expires 11/30/16

Operator's Well No. Nathan Reed #1

LEGEND

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- Buildings
- Water wells
- Drill site

- Diversion
- Spring
- Wet Spot
- Drain Pipe with size in inches
- 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 ± Prevegetation pH 6.0
 Lime 3 Tons/acre or to correct to pH 6.5
 Fertilizer (10-20-20 or equivalent) 1/3 ton ~~2~~ /acre (500 lbs minimum)
 Mulch Hay/straw 2 Tons/acre

Seed Mixtures

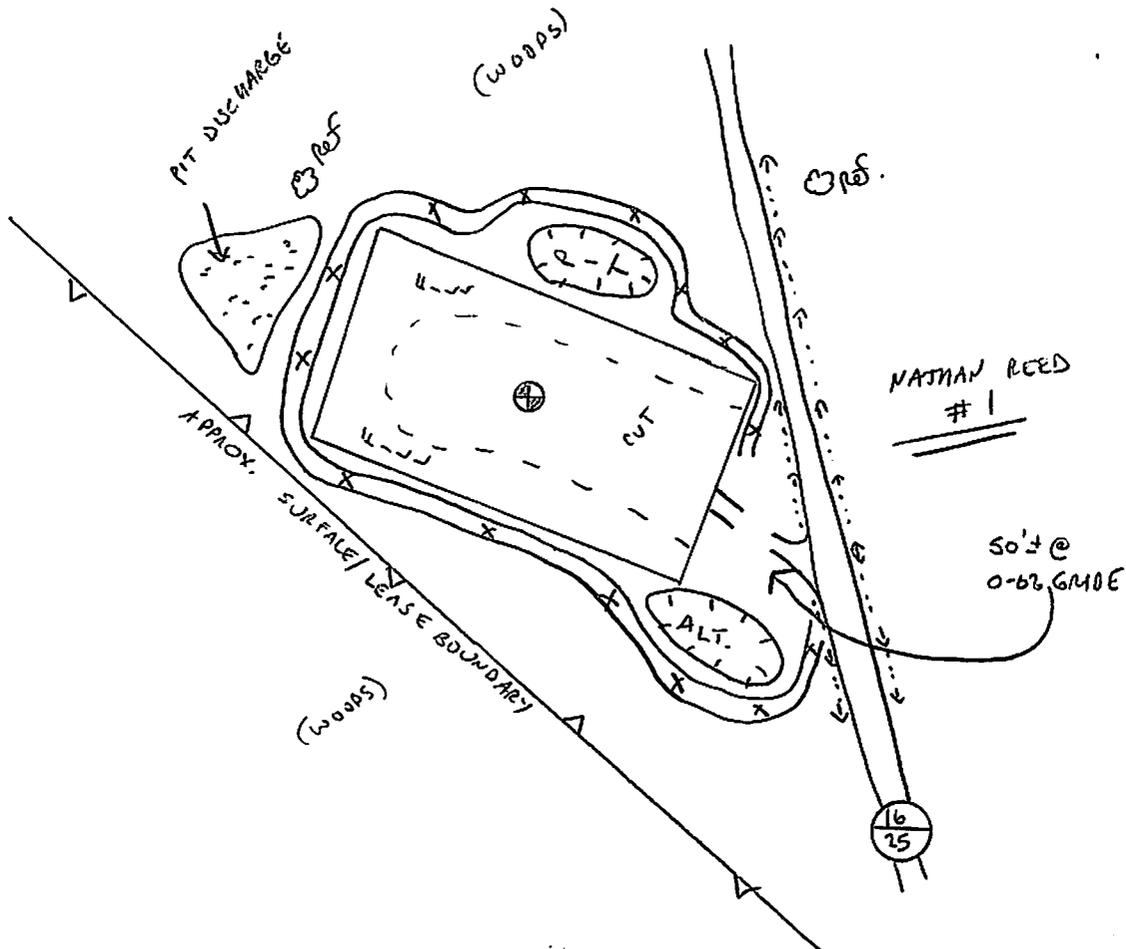
Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
<u>KY-31</u>	<u>40</u>	<u>Orchard Grass</u>	<u>15</u>
<u>Alsike Clover</u>	<u>5</u>	<u>Alsike Clover</u>	<u>5</u>
<u>Annual Rye</u>	<u>15</u>		

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

Plan Approved by: David M. Cannon
 Comments: press & mulch all cut areas maintain all
6.5 during operation
 Title: oil & gas inspector Date: 4-21-14
 Field Reviewed? Yes No

Nathan Reed Lease Well No. 1

NORTH
DRAWING 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. 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.

CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

Received

Done
4-21-14

JUL 21 2014

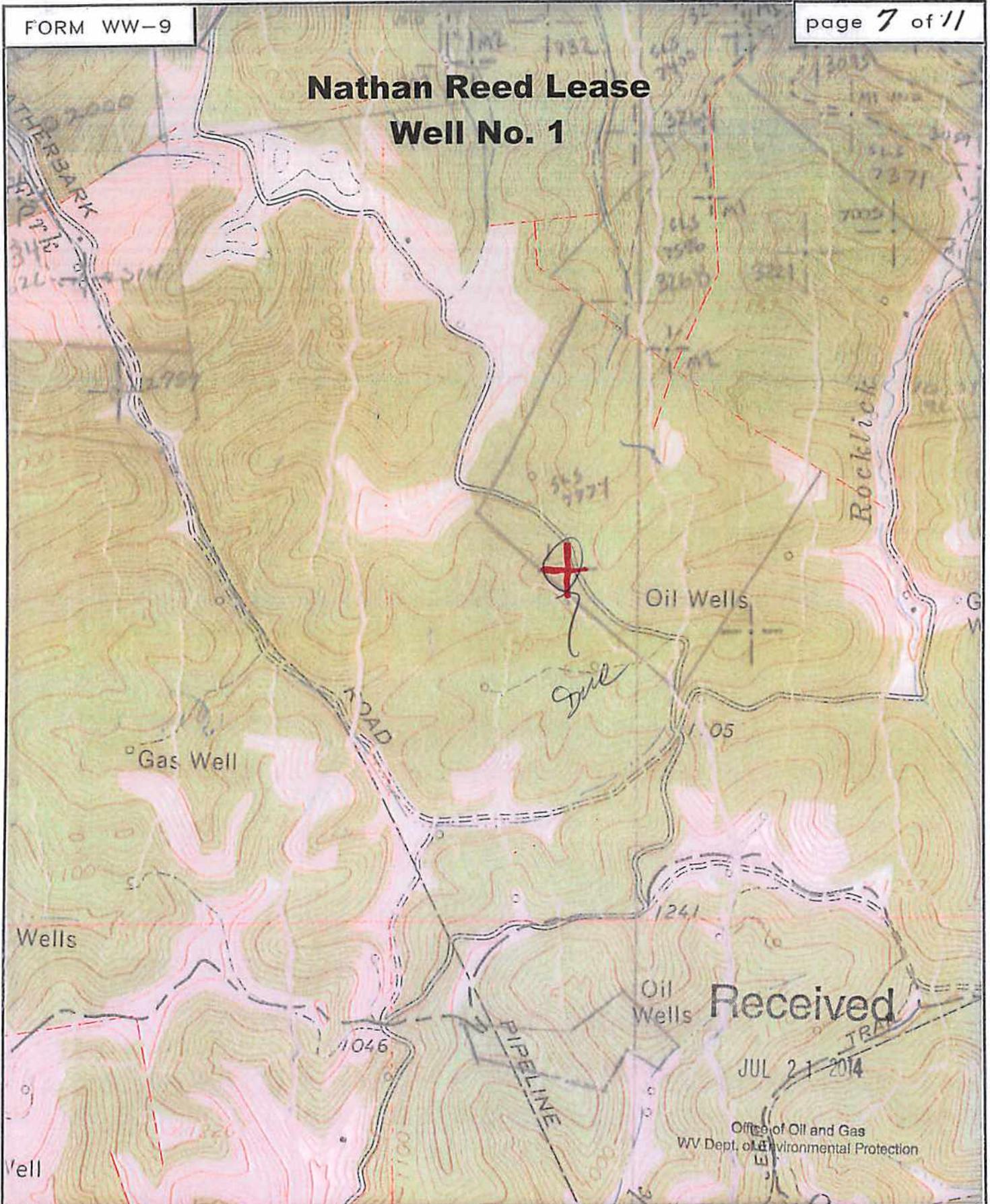
Office of Oil and Gas
WV Dept. of Environmental Protection

SLS SMITH LAND SURVEYING, INC.
P.O. BOX 150 GLENVILLE, WV. 26351

Phone: (304) 462-5634 Fax: 462-5656 email: sls@slssurveys.com
DRAWN BY C.P.M. DATE 12/21/11 FILE NO. 7774

8510145

Nathan Reed Lease Well No. 1



SMITH LAND SURVEYING
P.O. BOX 150 GLENVILLE, WV. 26351

TOPO SECTION OF SMITHVILLE 7.5'

FILE NO. 7774 DATE 1/30/12 SCALE 1"=1000'

NATHAN REED LEASE

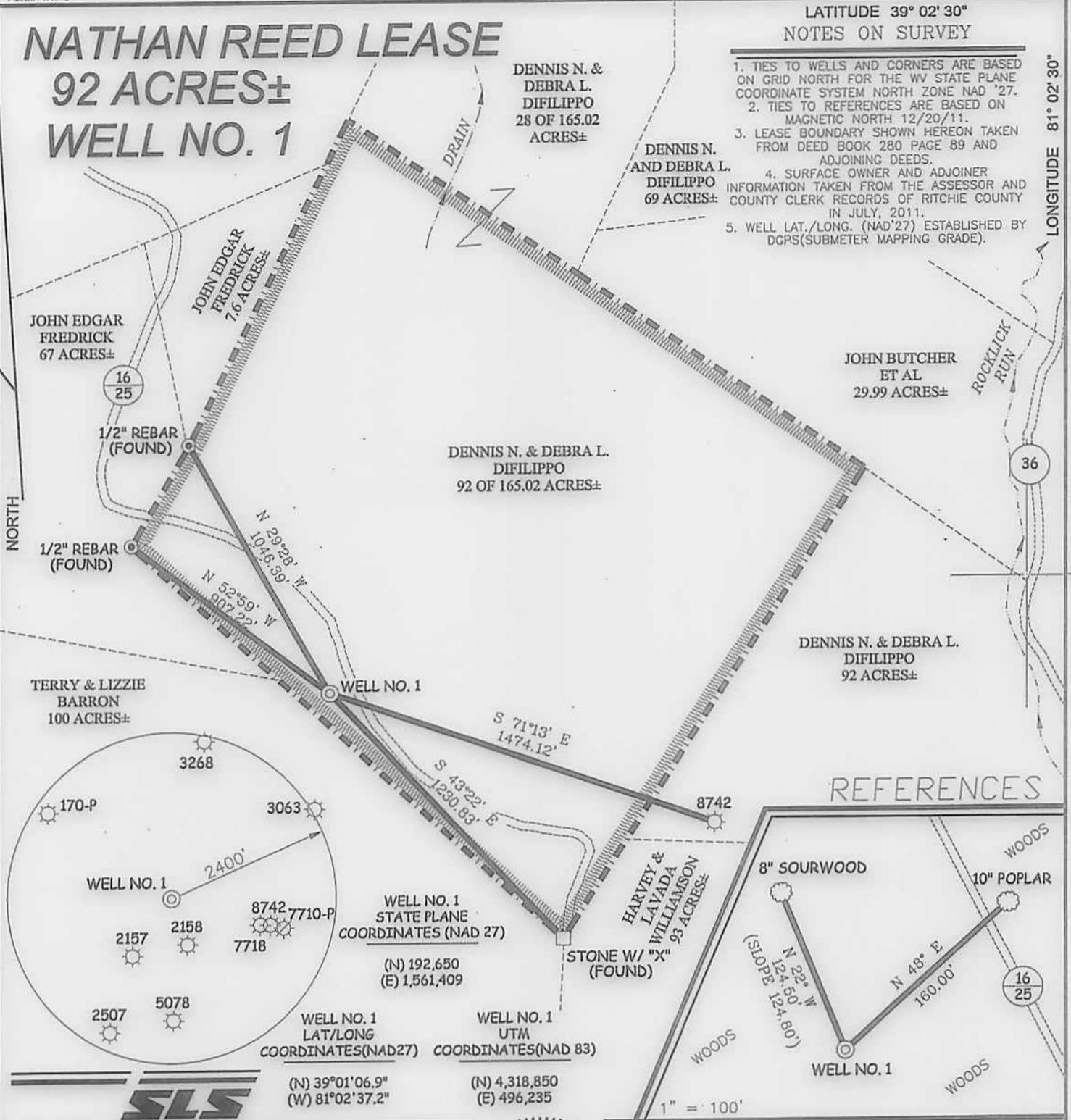
92 ACRES±

WELL NO. 1

LATITUDE 39° 02' 30"
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 12/20/11.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 280 PAGE 89 AND ADJOINING DEEDS.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2011.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

LONGITUDE 81° 02' 30"



WELL NO. 1 LAT/LONG COORDINATES(NAD27)	WELL NO. 1 UTM COORDINATES(NAD 83)
(N) 39°01'06.9" (W) 81°02'37.2"	(N) 4,318,850 (E) 496,235



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 DECEMBER 21, 20 11
 OPERATORS WELL NO. NATHAN REED #1
 API WELL NO. 47 - 85 - 10145
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 7774P1(396-33)
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

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 1,186' WATERSHED MIDDLE FORK OF LEATHERBARK CREEK
 DISTRICT MURPHY COUNTY RITCHIE QUADRANGLE SMITHVILLE 7.5'

SURFACE OWNER DENNIS N. & DEBRA L. DIFILIPPO ACREAGE 92 OF 165.02±
 ROYALTY OWNER NATHAN REED HEIRS OR ASSIGNS, ET AL LEASE ACREAGE 92±

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 & 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

COUNTY NAME PERMIT

8510145



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

CK# 32654
+ 650.00

July 17, 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: Nathan Reed #1, Ritchie County, West Virginia

Dear Justin:

Please find enclosed a New Well Application for the Nathan Reed #1, together with our check in the amount of \$650.00.

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

JUL 21 2014

Office of Oil and Gas
WV Dept. of Environmental Protection