



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 14, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-8510053, 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: HELDRETH M2
Farm Name: SCHLABACH, DALEN R.

API Well Number: 47-8510053

Permit Type: Vertical Well

Date Issued: 08/14/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

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.

8570053

Check # 4160

\$ 650.00

WW - 2B
(Rev. 8/10)

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

85 03 612

1) Well Operator Murvin & Meier Oil Co 307980 Ritchie Murphy Smithville 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Heldreth m2 3) Elevation: 836'

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

5) Proposed Target Formation(s): Warren thru Rhinestreet Proposed Target Depth: 6010

6) Proposed Total Depth: 6010 Feet Formation at Proposed Total Depth: Rhinestreet

7) Approximate fresh water strata depths: 76'

8) Approximate salt water depths: 1550'

9) Approximate coal seam depths: None

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	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	16"			25'	25'	
Fresh Water	11 3/4"	A500	32	300	300	CTS
Coal						
Intermediate	8 5/8"	A500	23	1600	1600	CTS
Production	4 1/2"	WT65Y	10.5	5940	5940	600
Tubing						
Liners						

Packers: Kind
Sizes
Depths Set

Dul
7-2-13

CK # 4160
\$650.00

8510053

WW-2A
(Rev. 6-07)

1.) Date: July 3, 2013
2.) Operator's Well Number Heldreth 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 Dalen B. Schlabach ✓
Address 5521 Township Rd. 336
Millersburg, Ohio 44654
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mr. David Cowan
Address Route 1 Box 202
Harrisville WV 26362
Telephone 304-389-3509
5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
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 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.



Well Operator Murvin and Meier Oil Co
By: Barbara A. Hill
Its: Vice President
Address PO Box 396
Olney Illinois 62450
Telephone 618-395-4405
Subscribed and sworn before me this 3 day of July, 2013
Barbara A. Hill Notary Public
My Commission Expires _____

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

WW-2A1
(Rev. 1/11)

Operator's Well Number Heldreth 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
<i>Bessie A. Beall et al</i>	<i>Russell G. Beall</i>	<i>1/8</i>	<i>87/147</i>
<i>Russell G. Beall</i>	<i>Beall/Bishop Oil & Gas</i>		<i>224/524</i>
<i>Beall/Bishop Oil & Gas</i>	<i>Murvin and Meier Oil Co. Farmout</i>		<i>248/288</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

41 07
Office of Oil & Gas
Received

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: *Gay Huffill*
Its: *Vice President*

WW-2B1
(5-12)

Well No. Heldreth No. 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 Laboratory
Sampling Contractor Smith Land Surveying, Inc. – Environmental Division

Well Operator Murvin & Meier Oil Company
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 1 potable water source within 1,000', therefore tests will be offered and samples taken as required.

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Murvin & Meier Oil Company OP Code 307980

Watershed Rocklick Run Quadrangle Smithville 7.5'

Elevation 836' County Ritchie District Murphy

Description of anticipated Pit Waste: Drill water and various formation cuttings

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

Will a synthetic liner be used in the pit? Yes If so, what mil.? 6 mil 20 mil given

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 _____)

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

-If oil based, what type? Synthetic, petroleum, etc. None

Additives to be used? Soap

Will closed loop system be used? No

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 Gary L. Hill

Company Official (Typed Name) GARY L. HILL

Company Official Title VICE PRESIDENT

Subscribed and sworn before me this 3 day of July

Barbara A. Hill

My commission expires _____



BARBARA A. HILL
NOTARY PUBLIC
STATE OF OHIO
Comm. Expires
October 31, 2016

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 1.75 +/- Prevegetation pH 6.0
 Lime 3 Tons/acre or to correct to pH 6.5 *Preseed & mulch all disturbed no less than 2 ton per acre*
 Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)
 Mulch HAY 2 Tons/acre

Seed Mixtures

Seed Type	Area I		Seed Type	Area II	
		lbs/acre			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.

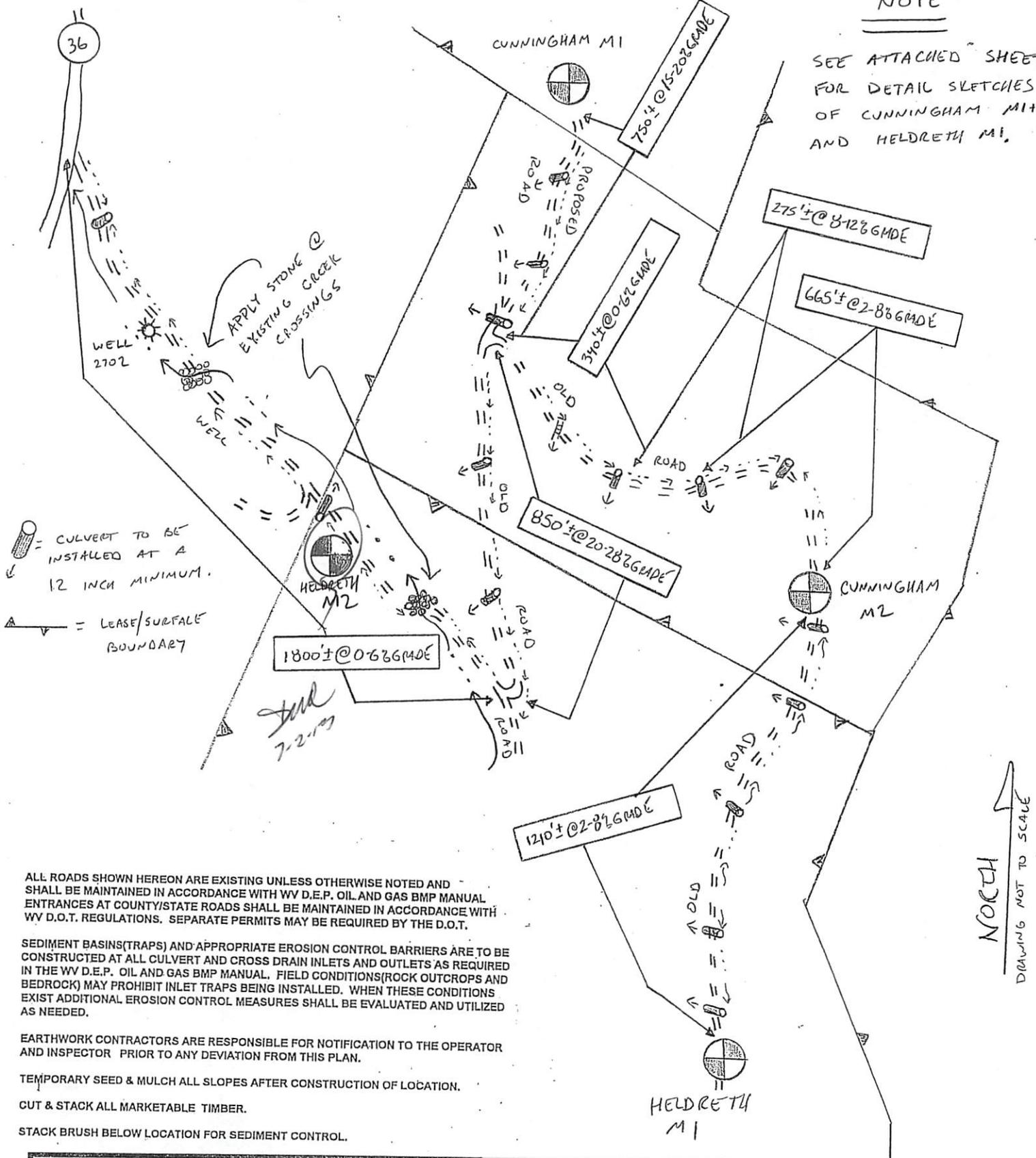
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *[Signature]*
 Title: *site supervisor* Date: 7-2-13
 Field Reviewed? Yes No

Heldreth Lease Well No. M1

NOTE

SEE ATTACHED SHEETS FOR DETAIL SKETCHES OF CUNNINGHAM M1+M2 AND HELDRETH M1.



= CULVERT TO BE INSTALLED AT A 12 INCH MINIMUM.
 = LEASE/SURFACE BOUNDARY

Handwritten:
 7-2-13

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.

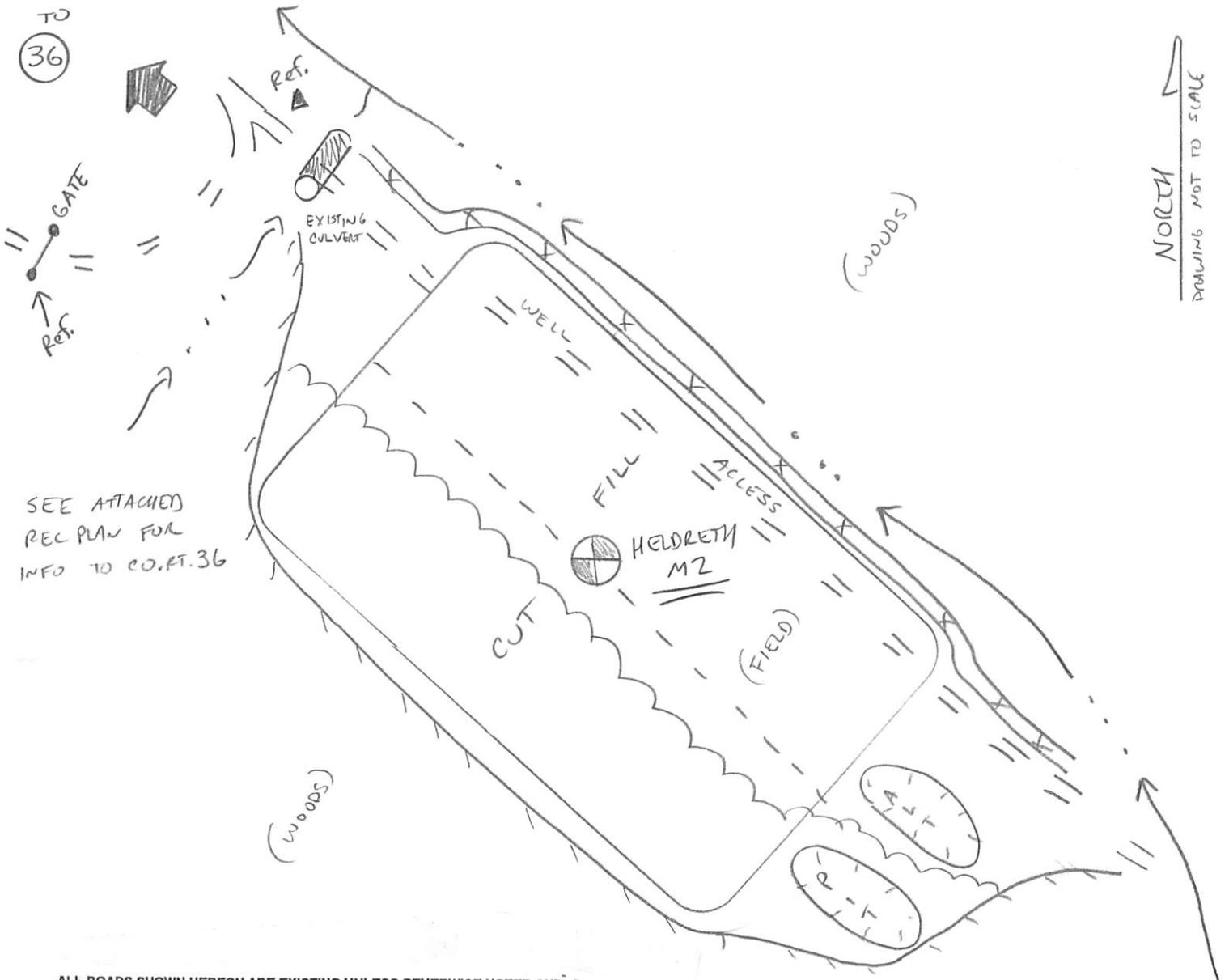
TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

SMITH LAND SURVEYING, INC. P.O. BOX 150, GLENVILLE, WV 26351	Phone (304) 462-5634 Fax 462-5656 email: sls@rtol.net
	REVISION BY C.P.M. 6/9/13 7320 DRAWN BY C.P.M. DATE 3/17/10 FILE NO. 7386

Heldreth Lease Well No. M2



SEE ATTACHED
REC PLAN FOR
INFO TO CO. FT. 36

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.

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CUT & STACK ALL MARKETABLE TIMBER.

STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

Paul

	Phone: (304) 462-5634 Fax: 462-5656 email: sls@slssurveys.com
P.O. BOX 150 GLENVILLE, WV. 26351	DRAWN BY C.P.M. DATE 6/9/13 FILE NO. 7386

HELDRETH LEASE WELL NO. M2 53 ACRES ±

DALEN R. SCHLABACH
68 ACRES±

RUSSELL G. AND MARY BEALL
25 ACRES±

DALEN R. SCHLABACH
53 ACRES±

DALEN R. SCHLABACH
46.45 ACRES±

NOAH L. AND EMMA YODER
36.37 ACRES±

NOAH L. AND EMMA YODER
125 ACRES±

WELL NO. M2
STATE PLANE
COORDINATES

(N) 195,159
(E) 1,566,164

WELL NO. M2
UTM
COORDINATES
(NAD 83 METERS)

(N) 4,319,638
(E) 497,671

NORTH

N 25°30' E
1,353.00'

HELDRETH # M2
DRAIN

S 57°00' E
1,448.50'

S 85°31' E
1,100.99'

S 72°51' E
1,511.61'

S 33°37' E
1,491.91'

1931

N 57°00' W
2,145.00'

9867

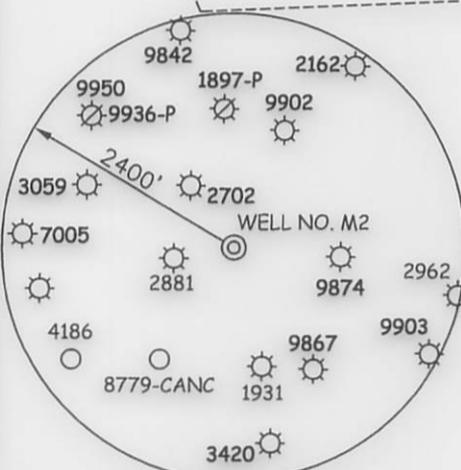
9874

PK NAIL @
LARGE ROCK

S 25°00' W
475.00'

S 18°00' E
594.00'

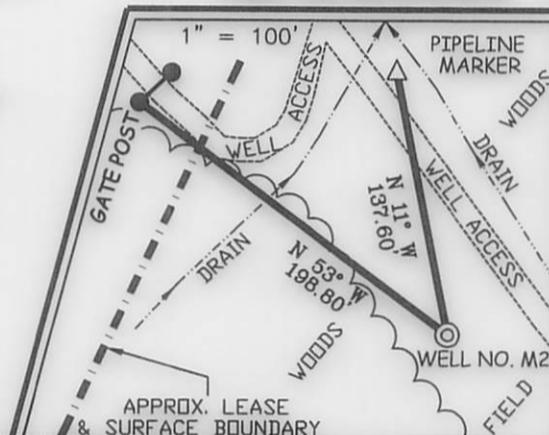
S 04°00' W
544.50'



NOTES ON SURVEY

1. TIES TO WELLS, REFERENCES, AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 157 PAGE 50.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2012.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SURVEY GRADE).

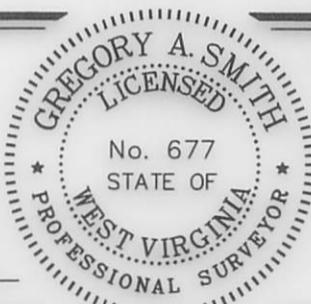
REFERENCES



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677

Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JUNE 12, 20 13
 OPERATORS WELL NO. HELDRETH # M2
 API WELL NO. 47 - 085 - 10053
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 7386M2 (465-52)
 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 836' WATERSHED ROCKLICK RUN
 DISTRICT MURPHY COUNTY RITCHIE QUADRANGLE SMITHVILLE 7.5'

SURFACE OWNER DALEN R. SCHLABACH ACREAGE 53±
 ROYALTY OWNER D. BEALL/ M. WELCH, ET AL LEASE ACREAGE 53±
 PROPOSED WORK: LEASE NO. _____

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

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION RINESTREET
 ESTIMATED DEPTH 6,000'

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

COUNTY NAME PERMIT