



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

July 03, 2013

WELL WORK PERMIT
Secondary Recovery Well

This permit, API Well Number: 47-3305757, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: W.F. WILLIAMS #136
Farm Name: WILLIAMS, CLYDE ET AL.
API Well Number: 47-3305757
Permit Type: Secondary Recovery Well
Date Issued: 07/03/2013

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 20 mil thickness synthetic liner.

WW-2B1

Well No. W. F. Williams No. 136

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.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

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

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Contractor Name Sturm Environmental Services
 Well operator's private laboratory

Well Operator HG Energy, LLC
Address 5260 Dupont Road
Parkersburg, WV 26101

Telephone 304-420-1119

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 underlining which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site please indicate such.

Requests for Water Sampling were initiated 4/19/13 with the first permit applications of this group of 30 applications. Water testing/analysis was requested for:

- | | | | | |
|---|---|--|---|--|
| Earl & Belva Junkins
RR 5, Box 1226
Salem, WV 26426 | Brian Huffman
RR 4, Box 530
Salem, WV 26426 | Susan Junkins
RR 2, Box 119A
Bristol, WV 26426 | Gary Winters & Ruth Kennedy
RR 2, Box 119
Bristol, WV 26426 | Claude & Jean Tetrick
RR 2, Box 40
Bristol, WV 26426 |
| John & Brenda Scotchie
RR 2, Box 42
Salem, WV 26426 | Linda Smith
9046 Westville Drive
Camden Wyoming, DE 19934 | Dennis McAvey
RR 2, Box 41
Bristol, WV 26332 | Mazza Donna Devericks
RR 2, Box 80
Bristol, WV 26302 | |

Received
Office of Oil & Gas

Additional testing authorized on 5/13/2013:

- | | | | |
|--|---|---|--|
| Oville Myers
RR 4, Box 531
Salem, WV 26426 | Daniel Southern
RR 4, Box 540
Salem, WV 26426 | Edgar Lee Myers
RR 4, Box 532
Salem, WV 26426 | Edith Jean Myers
RR 4, Box 534
Salem, WV 26426 |
|--|---|---|--|

07/05/2013

33057575

Form WW-9
Rev. 10/94

Page 3 of 3
API Number 47- 033 -
Operator's Well No. W. F. Williams No. 136

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 HG Energy, LLC OP Code 494497948
Watershed Branch of Lick Run Quadrangle Salem 7.5' 596
Elevation 1155' County Harrison 33 District Tenmile 09

Description of anticipated Pit Waste: Fluids encountered in drilling shallow well.

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

Will a synthetic liner be used in pit? Yes If so, what mil.? ~~10 Mil.~~ 20 Mil.

Proposed Disposal Method For Treated Pit Wastes:
 Land Application
 Underground Injection (UIC Permit Number)
 Reuse (at API Number)
 Off Site Disposal (Supply Form WW-9 for disposal location)
 Other (Explain)

SDW
5/23/2013

Drilling medium anticipated for this well? Air, fresh water, oil based, etc. Air, Fresh Water
- If oilbased, what type? Synthetic, petroleum, etc. NA

Additives to be used? Water, Soap, KCI

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.
- If left in pit and plan to solidify, what medium will be used? Cement, lime, sawdust Native soil, cement, lime
- 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.

Received
Office of Oil & Gas
MAY 27 2013

Company Official Signature Diane C White
Company Official (Typed Name) Diane C. White
Company Official Title Accountant

Subscribed and sworn before me this 20 day of MAY 2013
Tina L. Petzel Notary Public

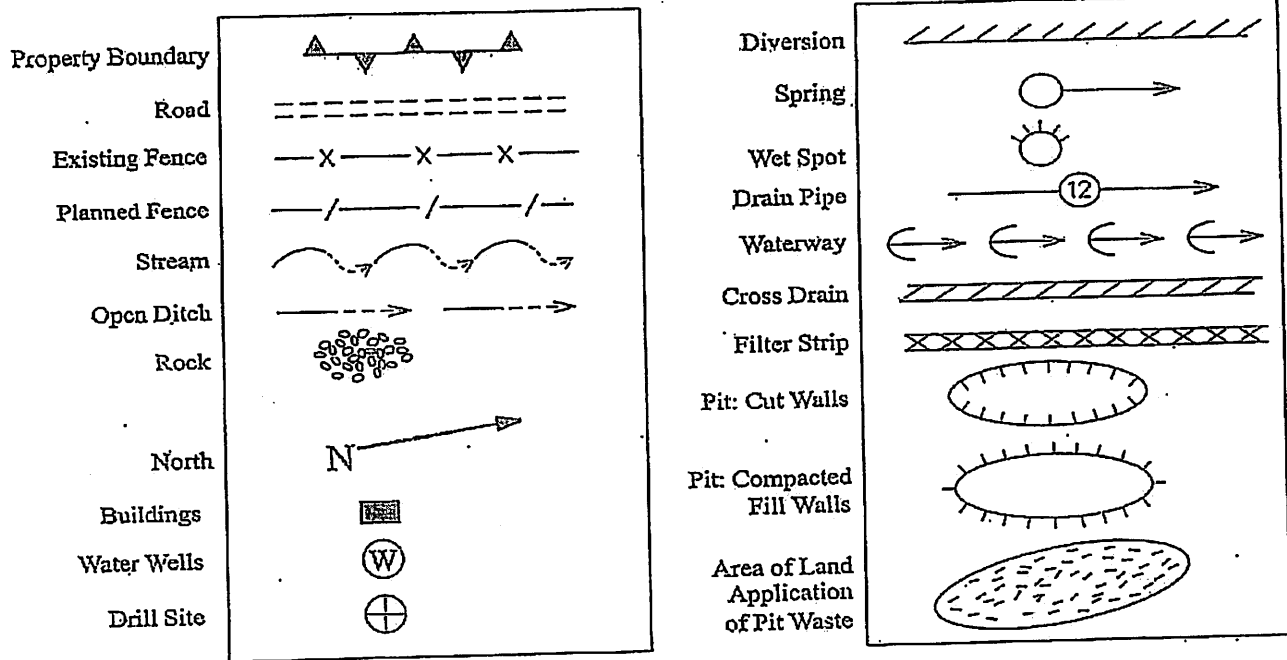
My commission expires Nov. 12, 2018

Form WW-9



WW9a Back

Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 1.0 Ac. Prevegetation pH _____

Area II Approx. 1.0 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5

Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)

Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

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

Plan approved by: S. J. O'Connell
 Comments: Pre-seed mulch - Upgrade EIS as necessary per WU DEP EIS manual

Title: Oil & Gas Inspector Date: 5/23/2013

Field Reviewed? Yes No

3305757

Reclamation Plan For:
W.F. Williams No. 136

W.B. Carpenter
Lease

Earl & Belva Junkins
- Surface Owner

W.F. Williams Lease

Brian V. Huffman
- Surface Owner

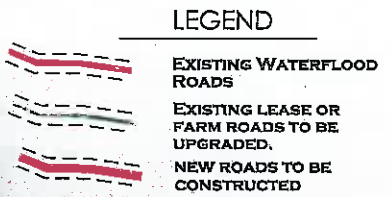
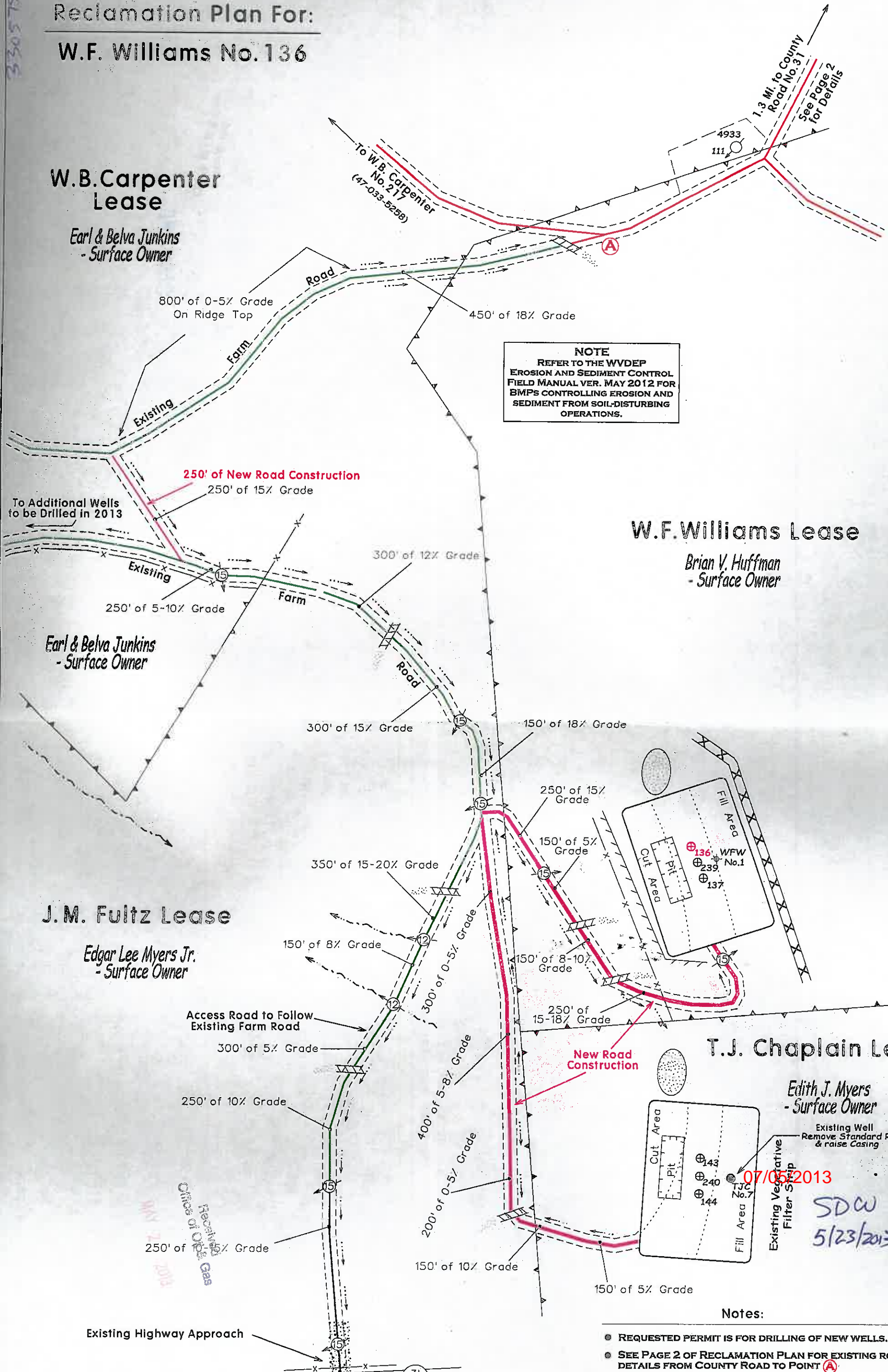
J.M. Fultz Lease

Edgar Lee Myers Jr.
- Surface Owner

T.J. Chaplain Lease

Edith J. Myers
- Surface Owner

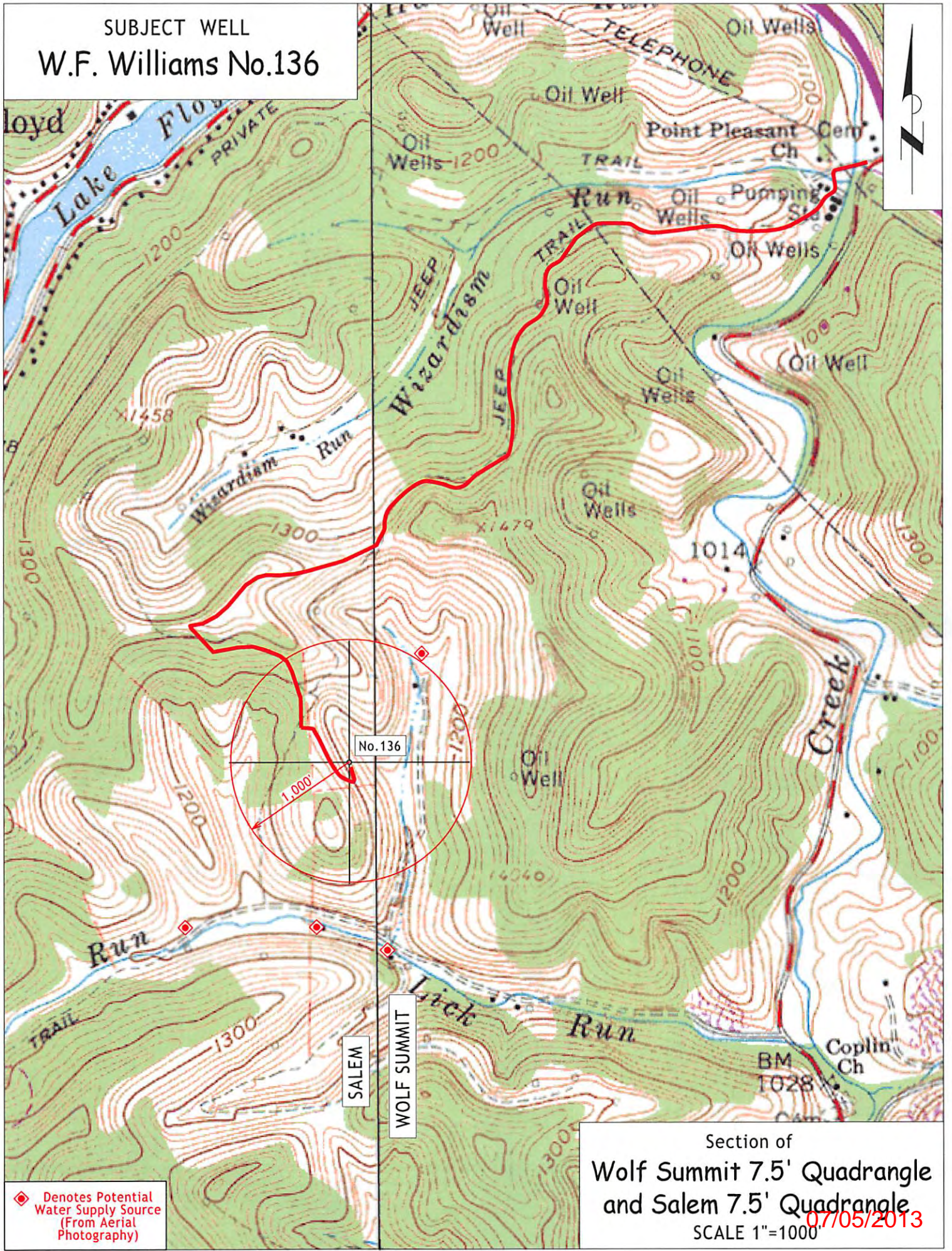
NOTE
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.



- Notes:**
- REQUESTED PERMIT IS FOR DRILLING OF NEW WELLS.
 - SEE PAGE 2 OF RECLAMATION PLAN FOR EXISTING ROAD DETAILS FROM COUNTY ROAD TO POINT A
 - ALL DISTURBED AREAS WILL BE RE-VEGETATED AS OUTLINED ON FORM WW-9.
 - MAINTAIN SEDIMENT BARRIERS AND DRAINAGE STRUCTURES.
 - ALL ROAD GRADES <5% EXCEPT AS NOTED.
 - LOCATION OF DRILL PIT MAY BE CHANGED BASED ON AS-BUILT CONSIDERATIONS.
 - DRAWING NOT TO SCALE.

07/05/2013
 SDW
 5/23/2013

SUBJECT WELL
W.F. Williams No.136



◆ Denotes Potential Water Supply Source (From Aerial Photography)

Section of
Wolf Summit 7.5' Quadrangle
and Salem 7.5' Quadrangle
SCALE 1"=1000'

07/05/2013

(BOTTOM HOLE: LON:-80°30'04.6")

LON:-80°30'02.6" 205

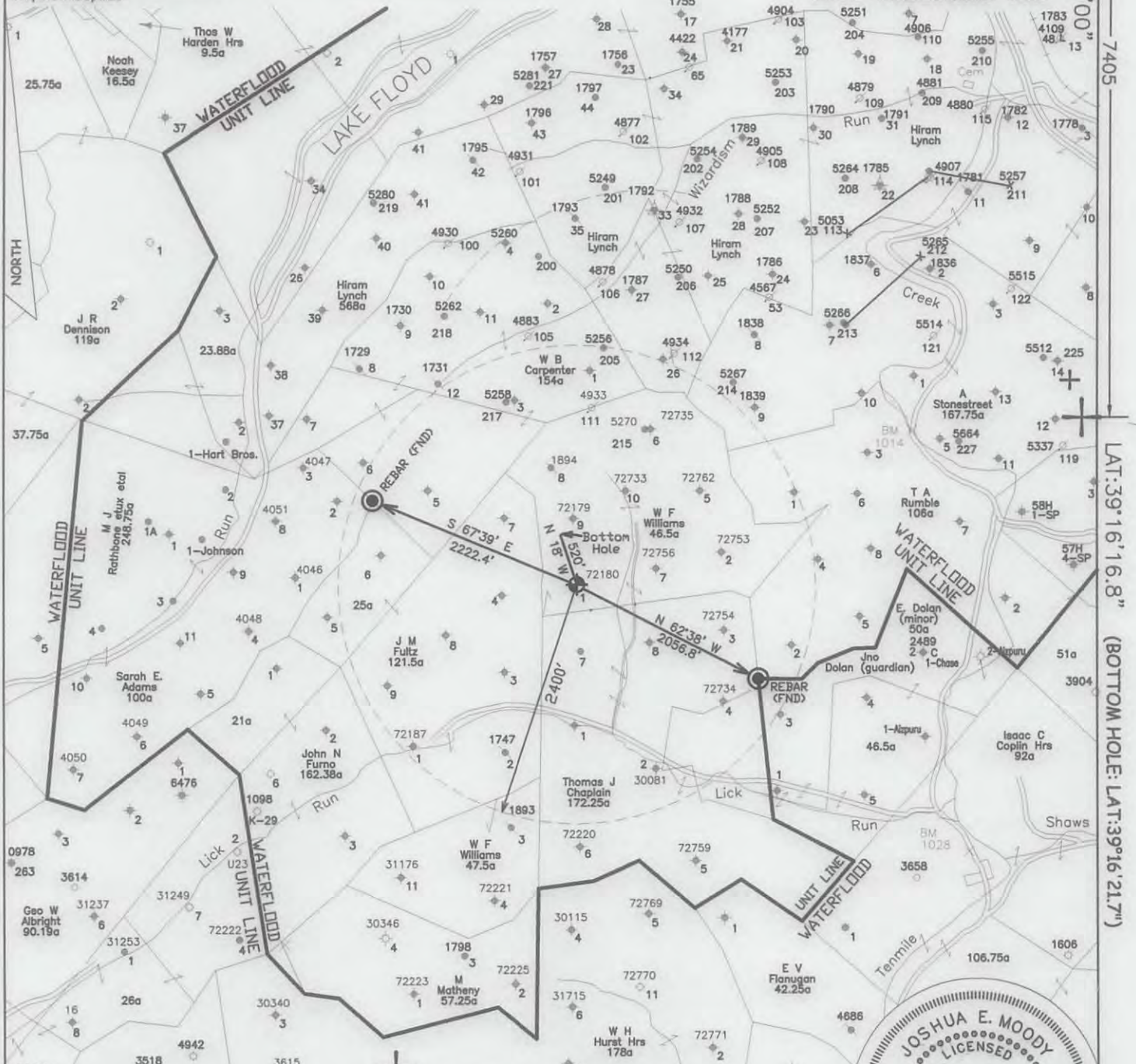
LAT: 39°17'30"

MAP OF H.G. ENERGY, LLC -WATERFLOOD UNIT- W.F. WILLIAMS 136

1 - Well ties and Latitude and Longitude were measured by Topcon Hiper GA survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).
2 - Surface owners, adjoining information, Lease names, & line mapping obtained from HGE GIS system. No survey was performed to determine lines within the Waterflood Unit-reference: HGE GIS system.
3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

Table with 2 columns: SURVEY NOTES, UTM Coordinates (Zone 17N-NAD 1983). Rows: Surface (N-4,347,017m, E-543,083m), Bottom Hole (N-4,347,168m, E-543,034m).

Table with 2 columns: LOCATION REFERENCES, UTM 27. Row: N 53°00' W 165.6' SPIKE @ T-POST Brg. Direction is prop. well to the ref.



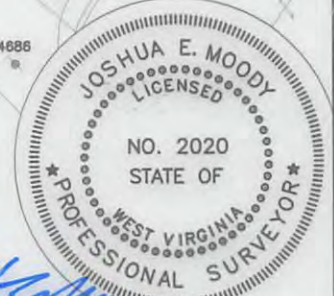
⊕ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

JOB # 13-014
DRAWING # 13LAKEFLOYD FOLDER
SCALE 1" = 1500'
MINIMUM DEGREE OF ACCURACY 1/2500
PROVEN SOURCE OF ELEV. BENCH MARK H-80

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 PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
MOODY LAND SURVEYING, LLC
ST. MARYS, WV 26170



JOSHUA E. MOODY, P.S. 2020

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION X WASTE DISPOSAL ___ HORIZONTAL ___
(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 1155' WATERSHED BRANCH OF LICK RUN DISTRICT TEN MILE COUNTY HARRISON
QUADRANGLE SALEM 7.5'

SURFACE OWNER BRIAN V. HUFFMAN ACREAGE 102.35 ACRES +/-
OIL & GAS ROYALTY OWNER CLYDE WILLIAMS ET AL LEASE ACREAGE 102 ACRES +/-
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 18° W 520')
PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
TARGET FORMATION 5TH SAND
WELL OPERATOR H.G. ENERGY, LLC
ADDRESS 5260 DuPONT ROAD PARKERSBURG, WV 26101
ESTIMATED DEPTH MD= 3,150'
DESIGNATED AGENT MIKE KIRSCH
ADDRESS 5260 DuPONT ROAD PARKERSBURG, WV 26101

07/05/2013

LON: 80°30'00" 7405
LAT: 39°16'16.8" (BOTTOM HOLE: LAT:39°16'21.7")

33057575

(BOTTOM HOLE: LON:-80°30'04.6")

LON:-80°30'02.6" 205

SURVEY NOTES

1 - Well ties and Latitude and Longitude were measured by Topcon Hiper GA survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).

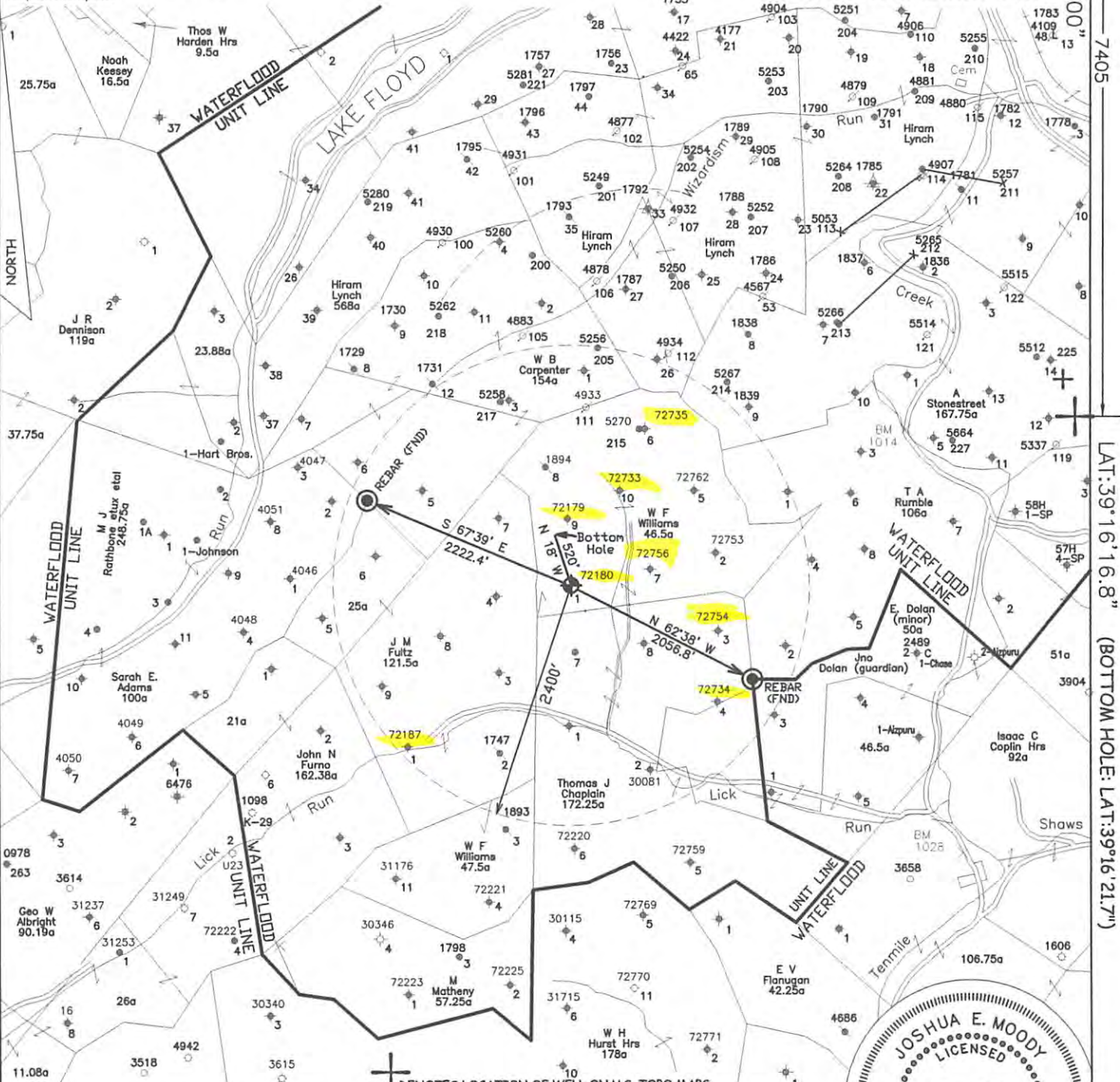
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3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

UTM Coordinates (Zone 17N-NAD 1983)	
Surface	N-4,347,017m. E-543,083m.
Bottom Hole	N-4,347,168m. E-543,034m.

LOCATION REFERENCES	
UTM 27	
N 59°51' E 38.9' EX: WELL	
N 53°00' W 165.6' SPIKE @ T-POST	
Brg. Direction is prop. well to the ref.	

LAT: 39°17'30"
**MAP OF
 H.G. ENERGY, LLC
 -WATERFLOOD UNIT-
 W.F. WILLIAMS 136**



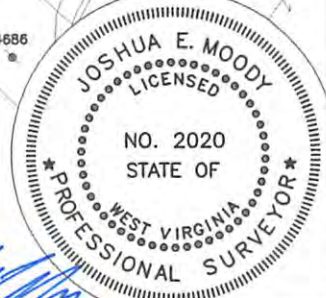
7405
 LAT: 39°16'16.8"
 (BOTTOM HOLE: LAT: 39°16'21.7")

JOB # 13-014
 DRAWING # 13LAKEFLOYD FOLDER
 SCALE 1" = 1500'
 MINIMUM DEGREE OF ACCURACY 1/2500
 PROVEN SOURCE OF ELEV. BENCH MARK H-80

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
MOODY LAND SURVEYING, LLC
 ST. MARYS, WV 26170



JOSHUA E. MOODY, P.S. 2020
 DATE 4/19/13
 OPERATOR'S WELL W.F. WILLIAMS #136

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL HORIZONTAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1155' WATERSHED BRANCH OF LICK RUN API WELL # 47-033-057575
 DISTRICT TEN MILE COUNTY HARRISON STATE WV COUNTY PERMIT
 QUADRANGLE SALEM 7.5'

SURFACE OWNER BRIAN V. HUFFMAN ACREAGE 102.35 ACRES +/-
 OIL & GAS ROYALTY OWNER CLYDE WILLIAMS ET AL LEASE ACREAGE 102 ACRES +/-
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (N 18° W 520')
 PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION 5TH SAND ESTIMATED DEPTH MD= 3,150'
 WELL OPERATOR H.G. ENERGY, LLC DESIGNATED AGENT MIKE KIRSCH
 ADDRESS 5260 DuPONT ROAD ADDRESS 5260 DuPONT ROAD
PARKERSBURG, WV 26101 PARKERSBURG, WV 26101

07/05/2013