



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 27, 2013


WELL WORK PERMIT
Secondary Recovery Well

This permit, API Well Number: 47-3305761, 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: J.M. FULTZ #142
Farm Name: MYERS, EDGAR LEE JR.
API Well Number: 47-3305761
Permit Type: Secondary Recovery Well
Date Issued: 08/27/2013

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.
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.

33057615

WW-3B
10/07



1) Date May 21, 2013
2) Operator's Well No. J. M. Fultz No. 142
3) API Well No. 47 - 033 -
State County Permit
4) UIC Permit No. UIC2R03301AP

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

5) WELL TYPE: Liquid Injection Gas Injection (not storage) _____ Waste Disposal _____
6) LOCATION: Elevation 1342' Watershed Branch of Lick Run
District Tenmile County Harrison Quadrangle Salem 7.5'
7) WELL OPERATOR: HG Energy, LLC 494497948 8) DESIGNATED AGENT: Mike Kirsch
5260 Dupont Road 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101
9) OIL & GAS INSPECTOR TO BE NOTIFIED: 10) DRILLING CONTRACTOR:
Name Sam Ward Name _____
Address P. O. Box 2327 Address _____
Buckhannon, WV 26201
11) PROPOSED WELL WORK: Drill Drill Deeper _____ Redrill _____ Stimulate
Plug Off Old Formation _____ Perforate New Formation _____ Convert _____
Other Physical Change in Well (specify) _____
12) Geological target formation Fifth Sand Depth 3,408 Ft. (Top) to 3,415 Ft. (Bottom)
13) Estimated depth of completed well (or actual depth of existing well) 3150' TVD 3550' TMD Ft.
14) Approximate water strata depths: Fresh 225 Ft. Salt 1,446 Ft.
15) Approximate coal seam depths: 700 Ft.
16) Is coal being mined in the area? Yes No
17) Virgin reservoir pressure in target formation: 1,250 psig. Source Estimated
18) Estimated reservoir fracture pressure: 2,650 psig.
19) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 BBL Bottom Hole Pressure 2,400 psi
20) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES Fresh water, produced water, bactericides
and other chemicals as needed to maintain water quality and improve oil recovery.
21) FILTERS (IF ANY) Cartridge filters and/or coal bed filters
22) SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL _____

23) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS (CU. FT.)	PACKERS
	Size	Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	7"	L.S.	17#	X		775'	775'	Cement to Surface	Tension
Coal									Sizes
Intermediate									<u>2,375' x 4.5" Gas</u>
Production	4 1/2"	J-55	10.5#	X		3550'	3550'	150 sacks <u>CTS</u>	Depths Set
Tubing	2 3/8"	J-55	4.6#	X		3250'	3250'		3150'
Liners									Perforations <u>2013</u>
									Top <u>2</u> Bottom

SDW
5/23/2013

24) APPLICANTS OPERATING RIGHTS were acquired from John M. Fultz
by Deed _____ Lease Other Contract _____ Dated August 15, 1896 of record in the
Harrison County Clerk's Office in _____ Book 92 at Page 47

33057615

Form WW-9
Rev. 10/94

Page 3 of 3
API Number 47- 033

Operator's Well No. J. M. Fultz No. 142

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'
Elevation 1342' County Harrison District Tenmile

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)

SPW
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.

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

Received
Office of Oil & Gas

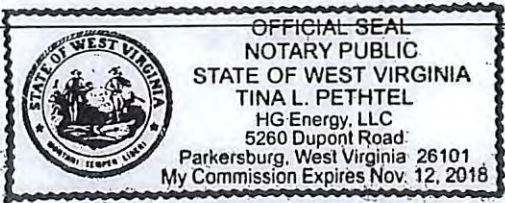
MAY 27 2013

Subscribed and sworn before me this 20 day of May 2012

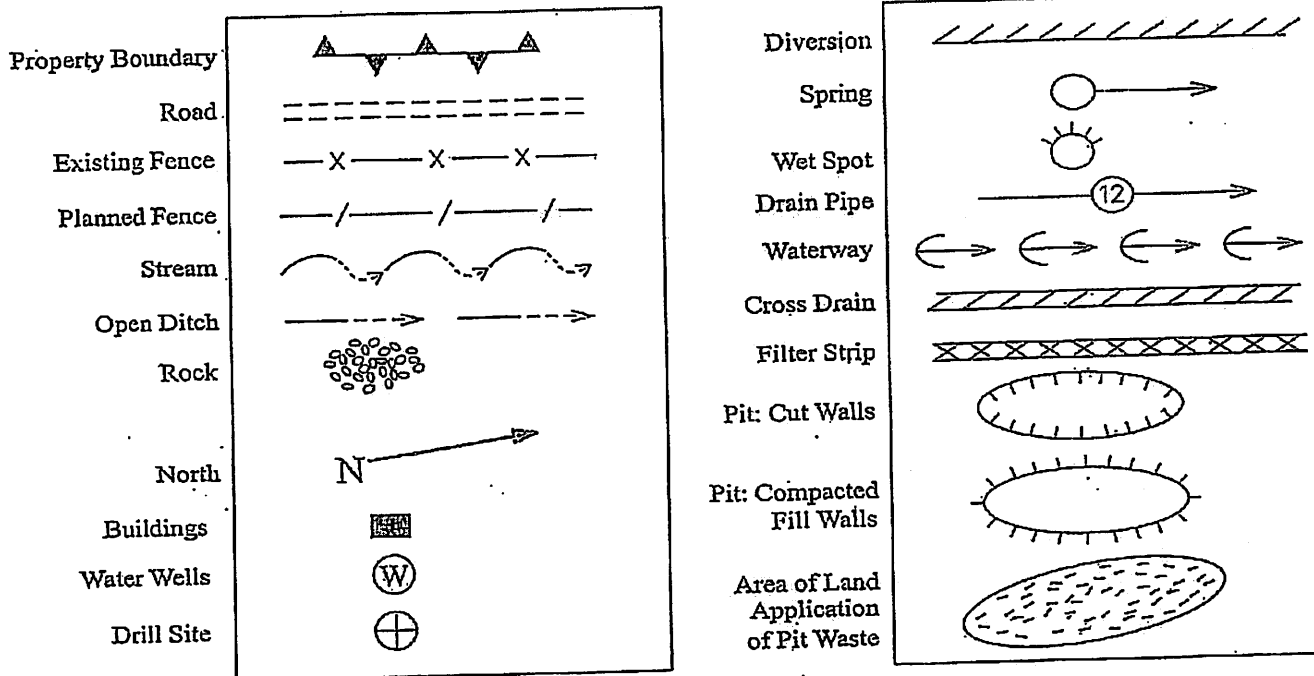
Tina L. Petzel Notary Public

My commission expires Nov 12, 2018

Form WW-9



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

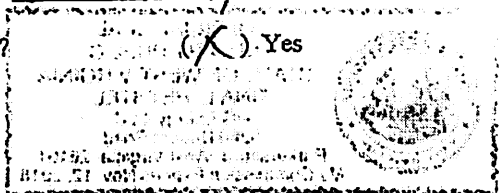
<u>Area I (Location)</u>		<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.	Seed Type	Lbs./Ac.
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

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. Dickson
 Comments: Pre-seed & mulch. Upgrade FDS as necessary per WV DEP ETS Manual

Title: Build Gas Inspector Date: 5/23/2013

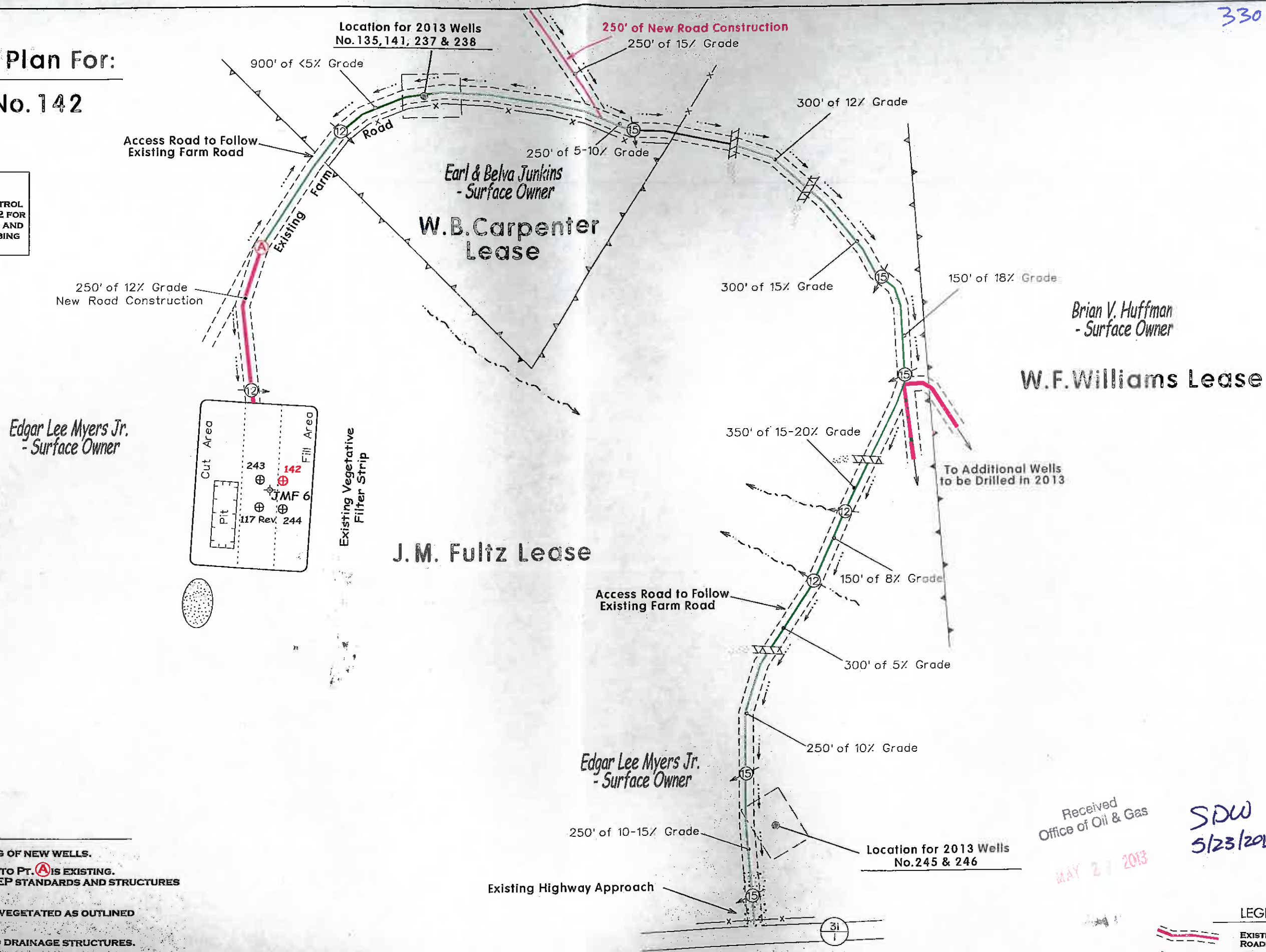
Field Reviewed? Yes () No



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Reclamation Plan For: J.M. Fultz No. 142

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.
- ACCESS ROAD FROM Co. Rd. 31/1 TO Pt. (A) IS EXISTING. ROAD WILL BE UPGRADED TO WVDEP STANDARDS AND STRUCTURES INSTALLED AS SHOWN.
- 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.

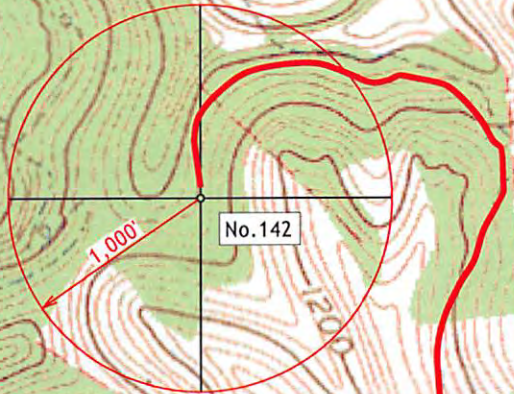
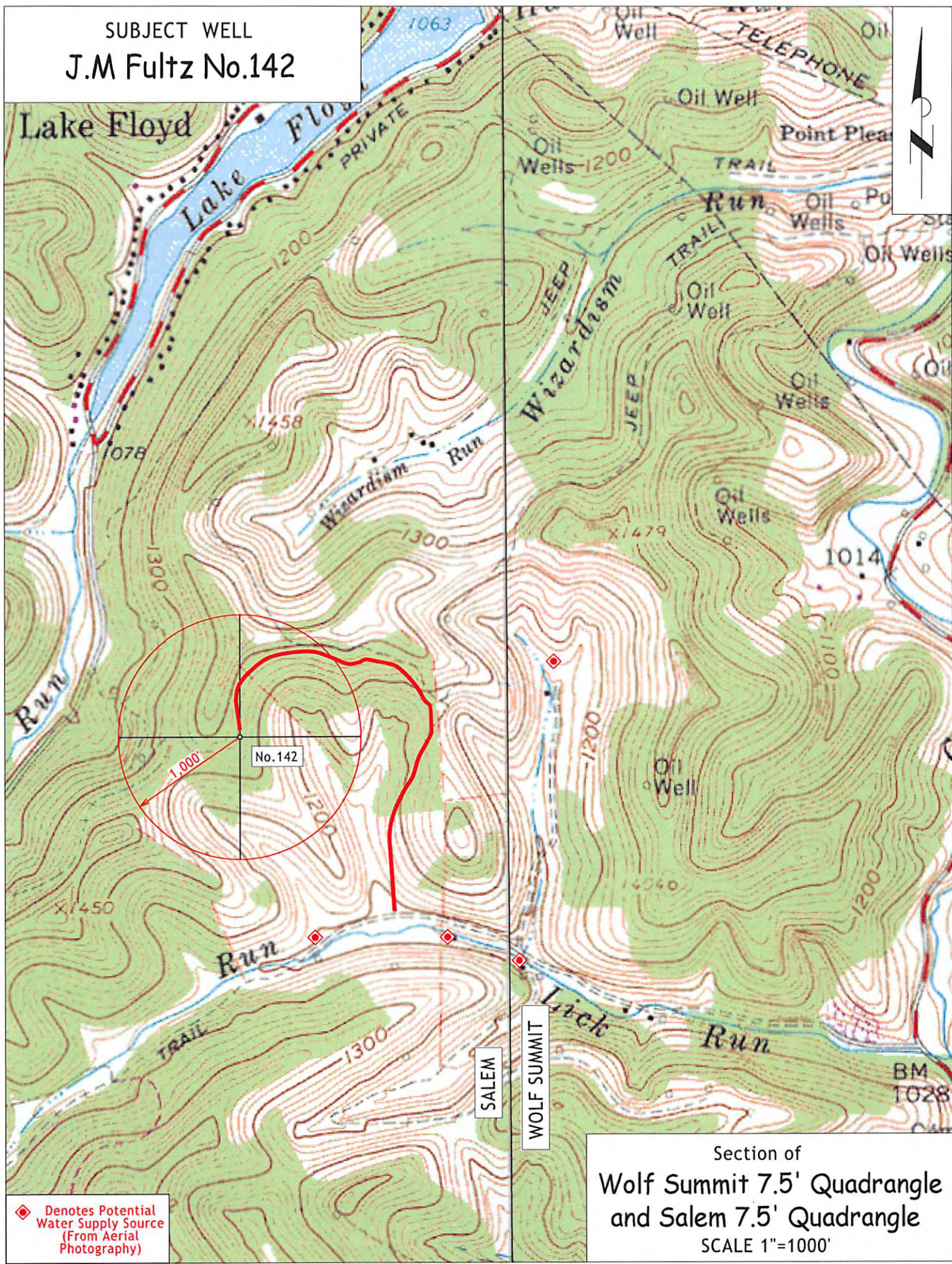
Received
Office of Oil & Gas
MAY 27 2013

SDW
5/23/2013

LEGEND

- EXISTING WATERFLOOD ROADS
- EXISTING LEASE OR FARM ROADS TO BE UPGRADED.
- NEW ROADS TO BE CONSTRUCTED

SUBJECT WELL
J.M Fultz No.142



◆ Denotes Potential Water Supply Source (From Aerial Photography)

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

