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

June 13, 2013

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-4303447, 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: AUSTIN GRIFFITH NO. 212
Farm Name: ALLEN, TERRY & DAWNA
API Well Number: 47-4303447
Permit Type: Vertical Well
Date Issued: 06/13/2013

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 20 mil thickness synthetic liner.

5. No land application of pit fluids.

4303447

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

1) Well Operator: HG Energy, LLC

2) Operator's Well Number: Austin Griffith No. 212 3) Elevation 997'

4) Well Type: (a) Oil X or Gas ____

(b) If Gas: Production ____ Underground Storage ____

5) Proposed Target Formation(s): Berea

6) Proposed Total Depth: 2587' ft.

7) Approximate fresh water strata depths: 365'

8) Approximate salt water depths: 1067'

9) Approximate coal seam depths: 425'

10) Does land contain coal seams tributary to active mine? Yes ____ No X

11) Proposed Well Work: Drill and stimulate production well in Berea

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight Per Ft.	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor						
Fresh Water	7"	LS	17#	525'	525'	Cement to surface
Coal						RDT 05/02/13
Intermediate						
Production	4 1/2"	J-55	10.5#	2587'	2587'	150 Sacks
Tubing						
Liners						

Packers: Kind ____
Sizes ____
Depths set ____

For Office of Oil and Gas Use Only

☐ Fee(s) Paid ☐ Well Work Permit ☐ Reclamation Fund ☐ WPCP

Received
Office of Oil & Gas

☐ Plat ☐ WW-9 ☐ WW-2B ☐ Bond ____ ☐ Agent
(Type)

MAY - 3 2013

Form WW2-A
(10/10)
Copy

4303447

1) Date: April 20, 2013
2) Operator's Well Number
Austin Griffith No. 212
3) API Well No: 47 - 043 - ____
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION 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 Terry & Dawna Allen ✓
Address 28 Russel Road
Yawkey, WV 25573
(b) Name Andy & Rebecca McClure ✓
Address 109 Coon Whistle Hollow
Yawkey, WV 25573
(c) Name
Address

5) (a) Coal Operator:
Name NA
Address

(b) Coal Owner(s) with Declaration
Name NA
Address

Name
Address

(c) Coal Lessee with Declaration
Name NA
Address

6) Inspector Ralph Triplett
Address 5539 McClellan Highway
Branchland, WV 25506
Telephone (304) - 389-0350

TO THE PERSON(S) 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 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 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 38 CSR 11-18, 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 HG Energy, LLC
By: Diane C White Diane C White
Its: Accountant
Address 5260 Dupont Road
Parkersburg, WV 26101
Telephone (304) 420-1119

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
HG Energy, LLC
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Nov. 12, 2018

Received
Office of Oil & Gas
MAY - 8 2013

Subscribed and sworn before me this 22 day of April 2013
Tina L Pethtel Notary Public

My commision expires NOV. 12 2018

4303447

Form WW-2A(1)
(10/10)

Operator's Well No. Austin Griffith No. 212

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
Austin and Elizabeth Griffith	**South Penn Oil Company**	**1/8**	**39/333**

Merger and Conveyance dated July 3, 1963, from South Penn Oil Company to Penzoil Company, Kanawha County, Book 153, Page 35,

Assignment, Conveyance and Bill of Sale dated December 28, 1998, from Pennzoil Company to Pennz Energy Exploration and Production, Wetzel County, Book 12, Page 177.

Certificate of Merger filed with the WV Secretary of State, December 31, 1999, whereby Pennz Energy Exploration and Production, successor in interest to; to Penzoil Company, merged with Devon Energy Production Company, LP, Wetzel County, Book 12, Page 278.

Deed, Assignment and Bill of Sale dated June 1, 2000, from Devon Energy Production Company, LP to East Resources, Inc., recorded in Wetzel County, Book 370, Page 580.

Assignment, Conveyance and Bill of Sale, dated January 1, 2011, from East Resources, Inc., to HG Energy, LLC, Wetzel County, Book 118A, Page 253.

Upon information and belief, Operator's lease and/or other real property rights permit it to conduct drilling operations for the subject well in the location shown on the plat, including the use of access roads, pipelines and utilities.

Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas

Received
Office of Oil & Gas
MAY - 8 2013

The permit applicantfor 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
US Fish and Wildlife Service
County Floodplain Coordinator

Well Operator: HG Energy, LLC
By: Diane C. White Diane C White
Its: Accountant

4303447

WW-2(B1)

FORM WW2-B1 Austin Griffith No. 212

West Virginia Division 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:

X 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 indicates such.

Received
Office of Oil & Gas
MAY - 8 2013

Special Note:
Water sampling was completed through out the Griffithsville area for the UIC permit review late in 2012. Per Jamie Peterson, WVDEP, the timing of that large UIC sampling was sufficent for this Griffithsville project.

4303447

Form WW-9
Rev. 10/10

API Number 47- 043 -
Operator's Well No. Austin Griffith No. 212

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 Porter Fork Quadrangle Griffithsville 7.5' 395
Elevation 997' County Lincoln 43 District Duval 02
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:
X Land Application NO LAND APPLICATION OF PIT FLUID
___ 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, fresh water, oil based, etc. Air, Fresh Water
- If oilbased, what type? Synthetic, petroleum, etc.
Additives to be used? Water, soap, KCl
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 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

Subscribed and sworn before me this 22 day of April 2013

Tina L Pethtel Notary Public

Received
Office of Oil & Gas
MAY - 8 2013

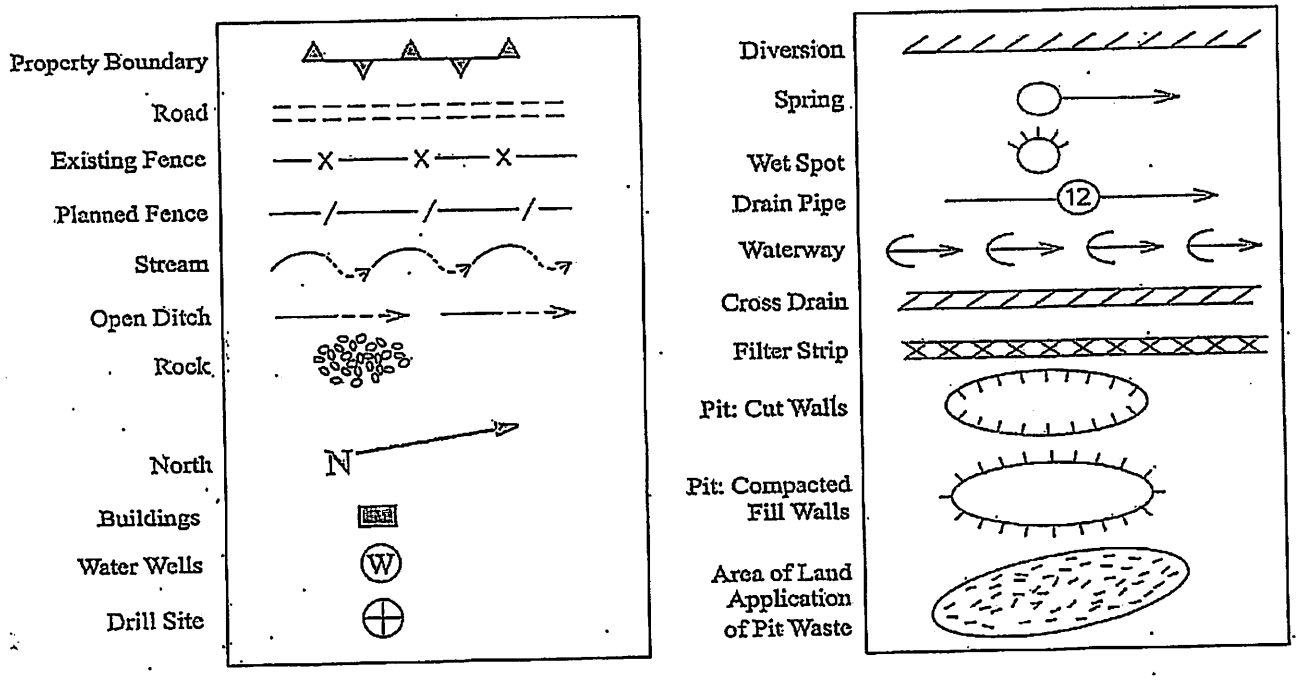
My commission expires Nov. 12, 2018

Form WW-9

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
TINA L. PETHTEL
HG Energy, LLC
5260 Dupont Road
Parkersburg, West Virginia 26101
My Commission Expires Nov. 12, 2018

4303447

Legend



Proposed Revegetation Treatment: Acres Disturbed

Area I
Approx. 1.0 Ac.

Prevegetation pH _____

Area II
Approx. 0.1 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

Area I (Location)

Seed Type	Lbs/Ac.
Tall Fescue	40
Ladino Clover	5

Area II (Road)

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: Ralph D Triplett

Title: District Inspector

Date: May 8, 2013

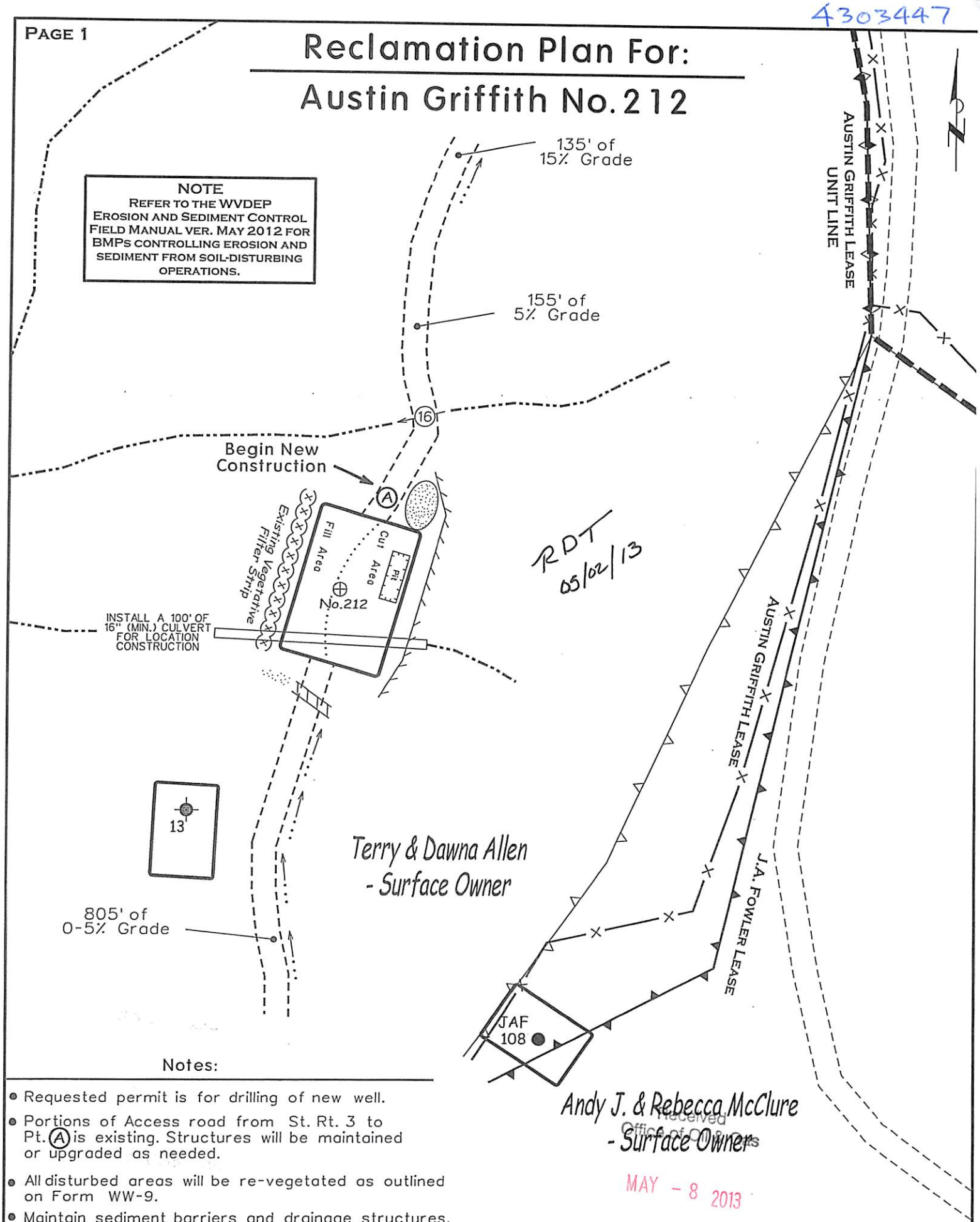
Received
Office of Oil & Gas
MAY - 8 2013

Field Reviewed? ✓ Yes _____ No

4303447

Reclamation Plan For:

Austin Griffith No. 212



RDT 05/02/13

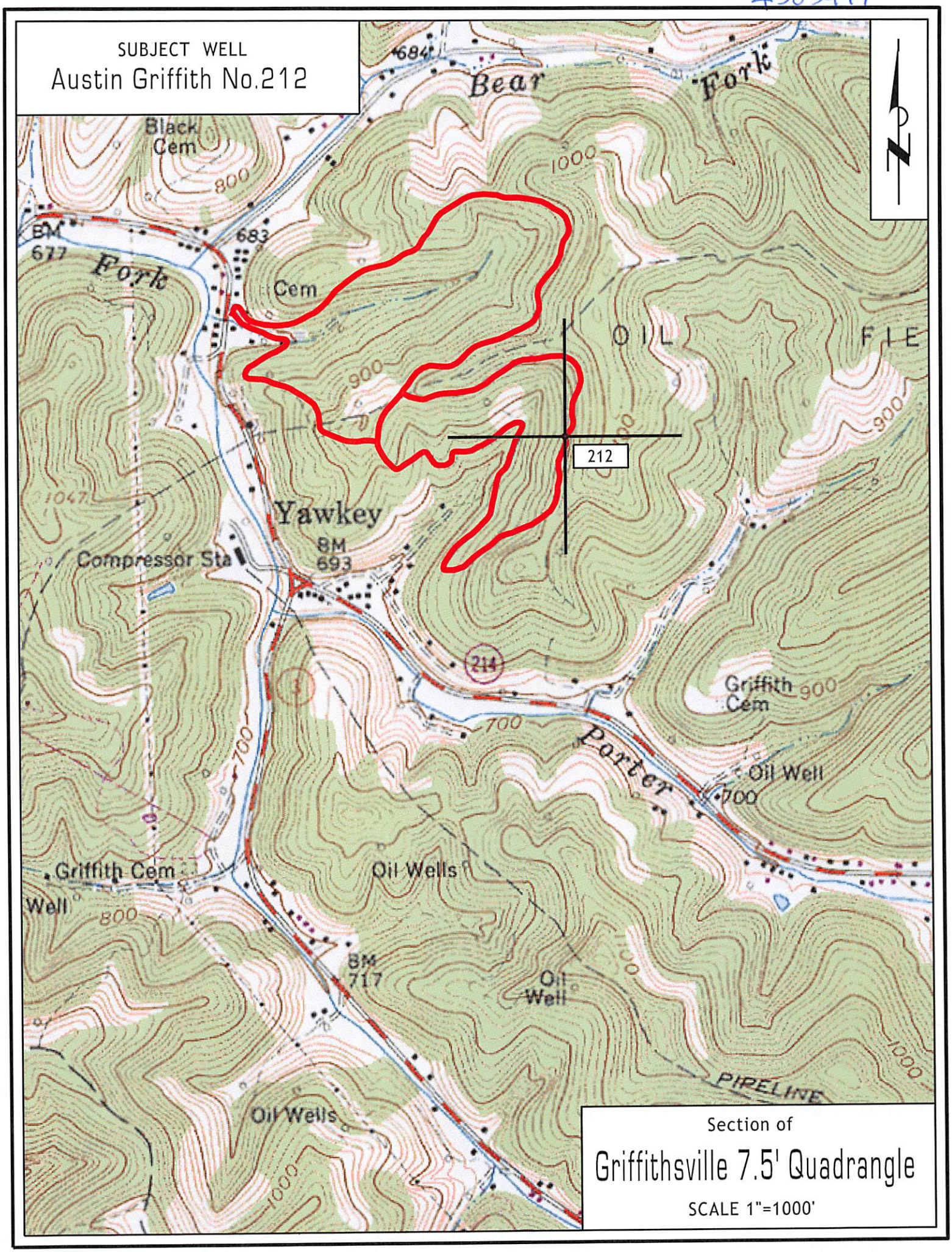
Notes:

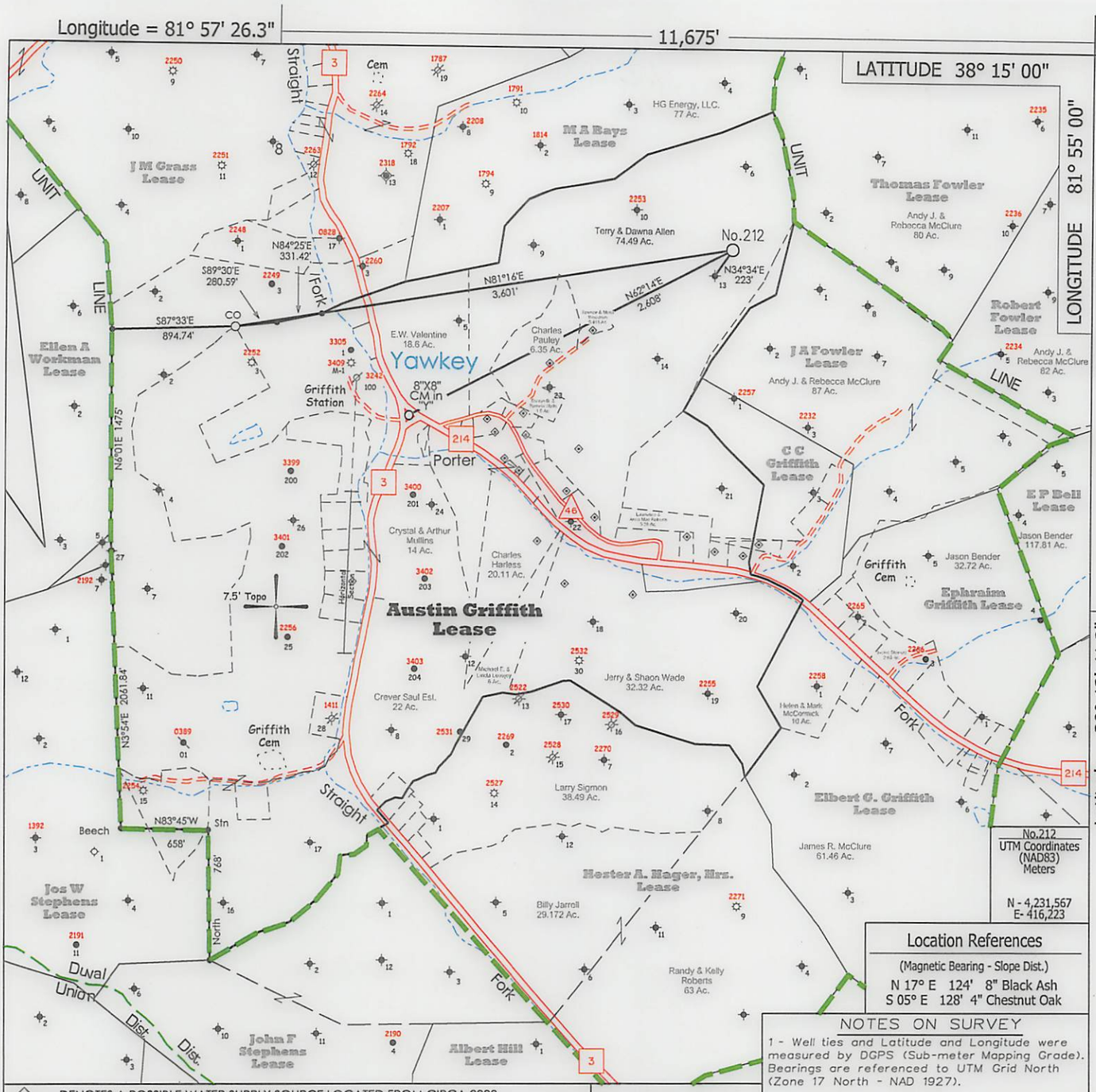
- Requested permit is for drilling of new well.
- Portions of Access road from St. Rt. 3 to Pt. (A) is existing. Structures will be maintained or upgraded as needed.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.
- Location of drill pit may be changed based on as-built considerations.

Received
Office of Oil & Gas
MAY - 8 2013

Note: Drawing not to Scale

4303447


SUBJECT WELL
Austin Griffith No.212
Bear
Fork
Black Cem
800
1000
BM 677
683
Fork
Cem
OIL FIE
900
212
1047
Yawkey
BM 693
Compressor Sta
214
Griffith Cem
900
700
Porter
Oil Well
700
Griffith Cem
Well
800
Oil Wells
BM 717
Oil Well
1000
PIPELINE
Oil Wells
1000
Section of
Griffithsville 7.5' Quadrangle
SCALE 1"=1000'



FILE NO. 1046-65
MAP NO. N S E W
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY Sub-Meter
PROVEN SOURCE OF ELEVATION DGPS Survey (Sub-Meter Mapping Grade)

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 DEPARTMENT OF MINES.

(SIGNED) _____
TIMOTHY P. ROUSH PS 793

TIMOTHY P. ROUSH LICENSED No. 793 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

WEST VIRGINIA
Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25301

DATE February 12, 2013
FARM Austin Griffith No.212
API WELL NO. 47 - 043 - 03447

WELL TYPE: OIL X GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
LOCATION: ELEVATION 997' WATERSHED Porter Fork
DISTRICT Duval COUNTY Lincoln
QUADRANGLE Griffithsville 7.5'
SURFACE OWNER Terry & Dawna Allen ACREAGE 74.49 Ac.
OIL & GAS ROYALTY OWNER HG Energy, LLC., et al LEASE ACREAGE 375 Ac.
LEASE NO. 56489-50
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) ___

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION Berea ESTIMATED DEPTH 2,587'

WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Mike Kirsch
ADDRESS 5260 DuPont Road Parkersburg, WV 26101 ADDRESS 5260 DuPont Road Parkersburg, WV 26101

FORM IV-6

Longitude = 81° 57' 26.3"

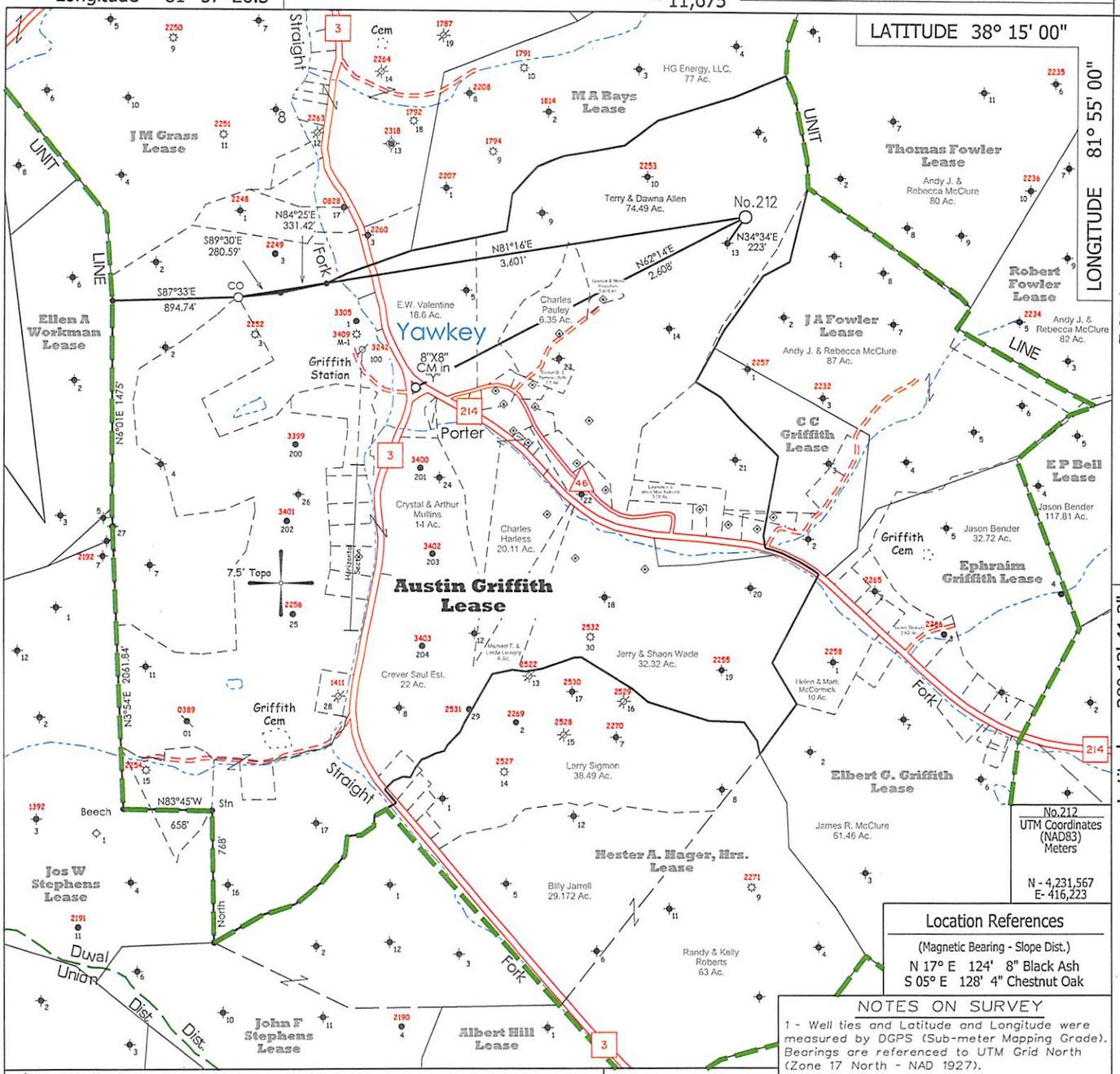
11,675'

LATITUDE 38° 15' 00"

LONGITUDE 81° 55' 00"

7,975'

Latitude = 38° 13' 41.2"



No.212
UTM Coordinates (NAD83) Meters
N - 4,231,567
E- 416,223

Location References

(Magnetic Bearing - Slope Dist.)

N 17° E 124' 8" Black Ash

S 05° E 128' 4" Chestnut Oak

NOTES ON SURVEY

1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).

2 - Lease Description From Surveys by Curtis A. Lucas, 1981 & Bruce Hager, 2003.

3 - Surface owner information obtained from the Lincoln County Assessor's tax records.

◈ - DENOTES A POSSIBLE WATER SUPPLY SOURCE LOCATED FROM CIRCA 2009 AERIAL PHOTOGRAPHY - NOT BY SURVEY. OTHER SOURCES MAY BE PRESENT.

✕ - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

NO KNOWN WATER SUPPLY SOURCES ARE LOCATED WITHIN 1000' OF PROPOSED WELL

FILE NO. 1046-65

MAP NO. N S E W

SCALE 1" = 1000'

MINIMUM DEGREE OF ACCURACY Sub-Meter

PROVEN SOURCE OF ELEVATION DGPS Survey (Sub-Meter Mapping Grade)

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 DEPARTMENT OF MINES.

(SIGNED) _____

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TIMOTHY P. ROUSH LICENSED No. 793 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

WEST VIRGINIA
Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25301

DATE February 12, 2013

FARM Austin Griffith No.212

API WELL NO. 47 - 043 - 03447

WELL TYPE: OIL X GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___

(IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

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DISTRICT Duval COUNTY Lincoln

QUADRANGLE Griffithsville 7.5'

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OIL & GAS ROYALTY OWNER HG Energy, LLC., et al LEASE ACREAGE 375 Ac.

LEASE NO. 56489-50

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PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION Berea ESTIMATED DEPTH 2,587'

WELL OPERATOR HG Energy LLC. DESIGNATED AGENT Mike Kirsch

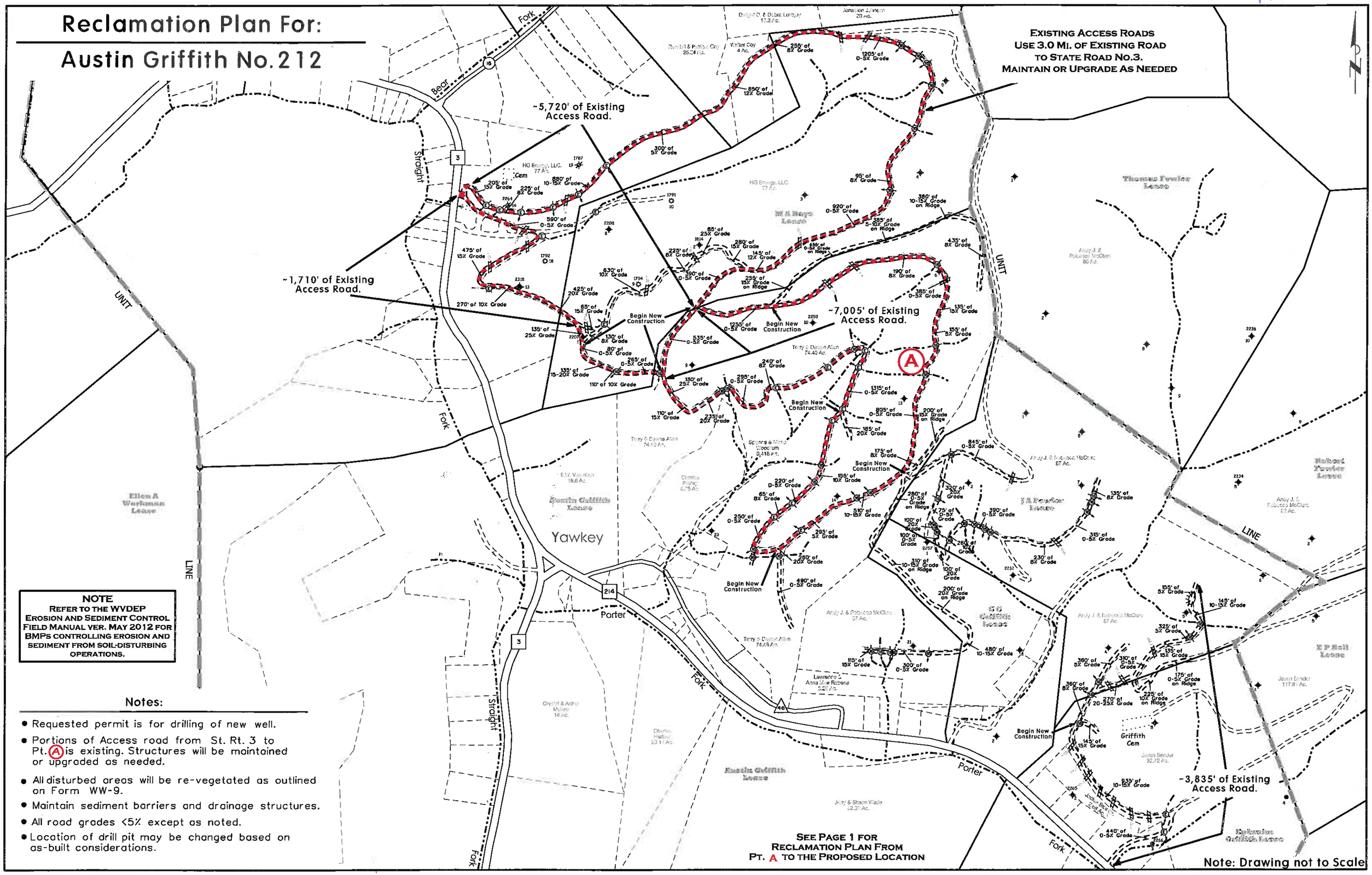
ADDRESS 5260 DuPont Road Parkersburg, WV 26101 ADDRESS 5260 DuPont Road Parkersburg, WV 26101

FORM IV-6

4303447

Reclamation Plan For:

Austin Griffith No. 212



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 well.
- Portions of Access road from St. Rt. 3 to Pt. A is existing. Structures will be maintained or upgraded as needed.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
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