

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

October 09, 2015

WELL WORK PERMIT

Vertical Well

This permit, API Well Number: 47-4303533, 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.

Operator's Well No: AUSTIN & RIFFITH 244

Farm Name: CREVER SAUL ESTATE

API Well Number: 47-4303533
Permit Type: Vertical Well
Date Issued: 10/09/2015

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.
- 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.

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

1) Well Operate	or: HG E	nergy,	LLC	494497948	Lincoln	Duval	Griffithsville 7.5
				Operator ID	County	District	Quadrangle
2) Operator's V	Veil Numb	er: Aus	tin Griffith 244		3) Elevation:	862'	_
4) Well Type: (a) Oil <u> </u>	or Ga	ns				
(1	b) If Gas:	Produ	ction/ Und	lerground Sto	rage		
		Deep	o/ S	hallow <u> </u>			
6) Proposed To	otal Depth fresh wat	: <u>3067'</u> ter strata	Berea Feet depths: 242' 1092'	Formation at F	Proposed Targeroposed Total	al Depth:	SHALE
9) Approximate	coal sea	m depth:	s: <u>292'</u>				_
10) Approxima	te void de	pths.(coa	al, Karst, other):	NA			
			s tributary to act			<u>-</u>	
			nd fracturing meth				
Drill and Stimu	liate prod	uction v	well in the Ber	ea. Sumulai	IOH WIII DE S	Siliali Tiyur	aulic fracture.
13)		C/	ASING AND TUI	BING PROGR	AM		
•	SPECIFIC					S CEME	ENT
	<u>Size</u>	<u>Grade</u>	Weight per ft	For Drilling	<u>Left in Well</u>	Fill -up (C	<u>u. Ft.)</u>
Conductor							
Fresh Water	7"	LS	17#	392'	392'	Cement t	o Surfac
Coal						AN CHI	08 15
Intermediate							
Production	4 1/2"	J-55	10.5#	3037'	3037' O	nc fic∈ 150	sks _{Gas}
Tubing						SFD 17	15
Liners					<u></u>		nent of -
Packers: Kind	d:				Env.		Propertion
Sizo							10/09/2 015
Dep	oths Set						

WW-2	2A
(Rev.	6-14)

1). Date: September 3, 2015

2.) Operator's Well Number

3.) API Well No .:

Austin Griffith 244

State 47County

Lincoln

Permit

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

4)	Surface Ow	ner(s) to be served:	5) (a) Coal Op	perator	
,	(a) Name	Crever Saul Estate	Name	NA	
	Address	2229 Chestnut Street	Address		
		Charleston, WV 25309			
	(b) Name	Danny & Judy Saul	(b) Coal (Owner(s) with	Declaration
	Address	25 Pond Gap Fork	Name	NA	
		Yawkey, WV 25573	Address		
			1		
	(c) Name	Jeremiah & Jessica Allen V	Name		
	Address	15 Storm Lane	Address	-	
		Yawkey, WV 25573			
6)	nspector	Ralph Triplett	(c) Coal L	essee with D	eclaration
	Address	5539 McClellan Highway	Name	NA	
		Branchland, WV 25506	Address	3.33	
	Telephone	304-389-0350		-	
		TO THE PERSONS N	IAMED ABOVE	TAKE NOTIC	E THAT:
	Included is the				I hold the right to extract oil and gas
OR			3		
	Included is the	he information required by Chapter	22, Article 6, Secti	on 8(d) of the C	Code of West Virginia (see page 2)
	I certify t	that as required under Chapter 22	-6 of the West Vir	ginia Code I ha	ave served copies of this notice and
app	lication, a loc	ation plat, and accompanying docu		ough on the	e above named parties by:
	-	Personal Service (Affidavit a			
		X Certified Mail (Postmarked p		ed)	
		Publication (Notice of Publication		and the second	
			and 35 CSR 4, and	I agree to the	e terms and conditions of any permit
ISSU	led under this		arconally evamined	l and am famil	iar with the information submitted on
thie					dividuals immediately responsible for
		ormation, I believe that the informat			
					n, including the possibility of fine and
imp	risonment.		3.45 24		And the second s
3			tor HG Energy,		
3	OL WILLY DO	NOTARY PUBLIC	By: Diane White		DESTIVED
3/			ts: Agent		number of Gas
31		5260 Dupont Road Addres	ss: <u>5260 Dupon</u>		Office of Gif are
{	1	Parkersburg West Virginia 26101 y Commission Expires Oct. 4, 2016 Telephon	Parkersburg		SED 1 7 7815
٤	- M	CIOPITO CONTRACTOR CON			SEP 1 1 Est
0.1		Ema			
Sun	scribed and s	sworn before me this 3rd day	of Septembe		, 2015 peparimento
	XZ	Samo Allan		Nota	ry Public of the Hall Protection
Mv	Commission	Expires Det (1) 20	016	,,,,,,	
	nd Gas Privacy		10.		
			an anab as was a di	lease and where	number as a part of our regulatory duties

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 securely business on a precision of Information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.qov

Operator's Well Number Austin Griffith 244

4303533

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:

Granto	. Lessor.	atc
Granico	. Lessoi.	eic.

Grantee, Lessee, etc.

Royalty

Book/Page

** See Attached Sheet ***

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 he reby a cknowledges 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

Office of the Cas

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 ac quired from the appropriate authority before the affected activity is initiated.

W	ell	Operator:
_		

By:Its:

HG Energy, LLC

Diane White, Agent

Diane White

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

Operator's Well No.	Austin Griffith 244	

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- (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 drillingerations 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

The permit applicant for the proposed well work addressed in this application hereby ackowledges 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

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Office of 1 and Gas

SEP . 7 .015

WW Data Intent of Environmental Protection

Well Operator: HG Energy, LLC LIVE Line Red. Projection

By: Diane C. White Diane White 10/09/2015

Its: Accountant

WW-2B1
(5-12)

AACII IAO.	Well No.	Austin Griffith 244
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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.

atory Name	Sturm Environmental Labs	
ractor	Sturm Environmental Labs	
HG Energy, L	rc	
5260 Dupont	Road	
Parkersburg,	WV 26101	
304-420-1119	9	
	HG Energy, L 5260 Dupont Parkersburg,	

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.

- See Attached Sheet -

REQUIMED
Office of and Gas

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West Virginia Department of Environmental Protection Office of Oil and Gas

NOTICE TO SURFACE OWNERS

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Surface Owners Identified With Water Sources to be Sampled and Tested:

- Erica Hall
 4272 Straight Fork Road
 Yawkey, WV 25573
- * Mark & Jeanie Salmons 20 Breezy Lane Yawkey, WV 25573
- Crystal & Arthur Mullins 4833 Straight Fork Road Yawkey, WV 25573
- * Tony & Lydia Politino 4821 Straight Fork Road Yawkey, WV 25573
- * Thomas & Linda Settle
 4825 Straight Fork Road
 Yawkey, WV 25573

- Harold Farley
 21 Breezy Lane
 Yawkey, WV 25573
- * Danny & Judy Saul 25 Pond Gap Fork Yawkey, WV 25573
- Leah Sowards
 2229 Chestnut Street
 Charleston, WV 25309
- Kevin & Ronda Linville
 4817 Straight Fork Road
 Yawkey, WV 25573

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Office and Gas

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WW-9 (5/13)

	Page	of
API Number 47		
Operator's Well N	Austin Grif	fith 244

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

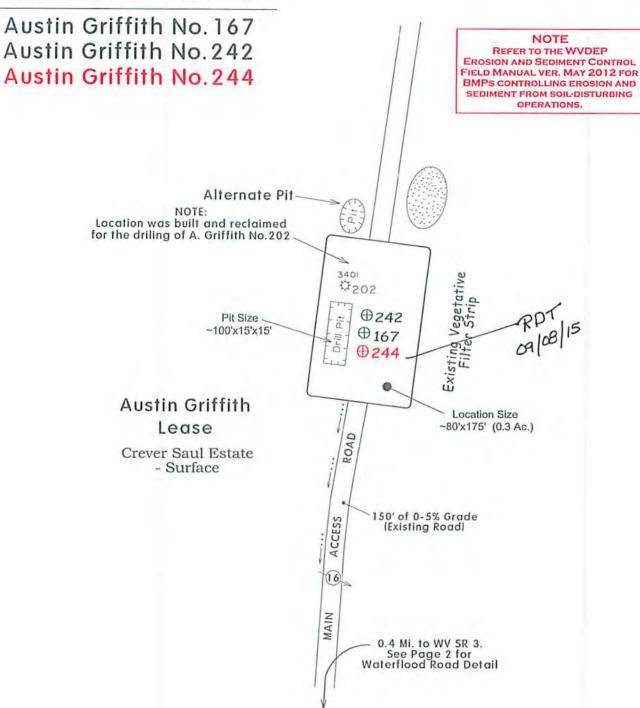
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy, LLC		OP Code	494497948
Watershed (HUC 10) Straight Fork			
	County_Lincoln		
Do you anticipate using more than 5 Will a pit be used for drill cuttings?		the proposed well work?	Yes No _x
•	pated pit waste: Fluids encou	intered while drilling sub	oject well
	ed in the pit? Yes X		
Proposed Disposal Method		·	
Reuse (a		for disposal location)	
Will closed loop system be used?	lo		
Drilling medium anticipated for this	well? Air, freshwater, oil base	ed, etc. Air, Fresh Water	
-If oil based, what type? Sy	ynthetic, petroleum, etc. NA		
Additives to be used in drilling med	ium? Water, soap, KCI		
Drill cuttings disposal method? Lea	ve in pit, landfill, removed off:	site, etc. Leave in pit	
-If left in pit and plan to so	lidify what medium will be use	d? (cement, lime, sawdus	Native soil, cement, lime
	ermit number?		
on August 1, 2005, by the Office of provisions of the permit are enforce law or regulation can lead to enforce I certify under penalty of application form and all attachme	Oil and Gas of the West Virging the by law. Violations of an ement action. I have personally expense that I have that, based one that the information is true,	nia Department of Environ by term or condition of the camined and am familiar n my inquiry of those in accurate, and complete.	WATER POLLUTION PERMIT issued amental Protection. I understand that the general permit and/or other applicable with the information submitted on this individuals immediately responsible for I am aware that there are significant
	Diane White		A MERCHANIA
Company Official (Typed Name)_[Diane White		Office
Company Official Title Agent			SEP 7 UST VIRGINIA
Subscribed and sworn before me thi		\$	20 75 Dupont Road West Virginia 26101 Env. ssion Engines Oct 4 2016
My commission expires Oc	+ 4,2016		10/09/201

Operator's Well No. Austin Griffith 244

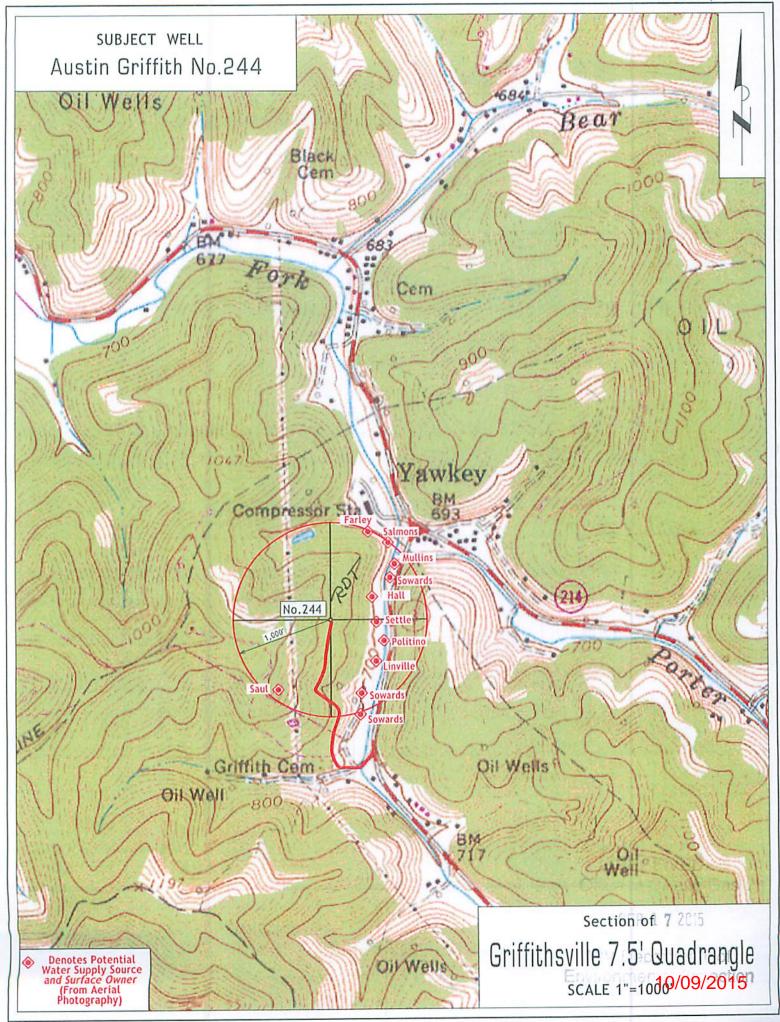
Proposed Revegetation Trea	tment: Acres Disturb	bed 0.6 acres Prevegetation	n pH
Lime3	Tons/acre or to	correct to pH 6.5	•
	or equivalent)	EOO	
Mulch Straw		2 Tons/acre	
<u>.</u>			
		Seed Mixtures	
Aı Seed Type	rea I lbs/acre	Seed Type	Area II lbs/acre
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5
· · · · · · · · · · · · · · · · · · ·			
** Sediment Contr	ol Should Bo I	In Place At All Times **	
- Confinent Contra	or Orloada De i	in race At Air rimes	· · · · · · · · · · · · · · · · · · ·
Orawing(s) of road, location,			
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Attach: Drawing(s) of road, location, Photocopied section of invol Plan Approved by: Comments:	ved 7.5' topographic	sheet.	
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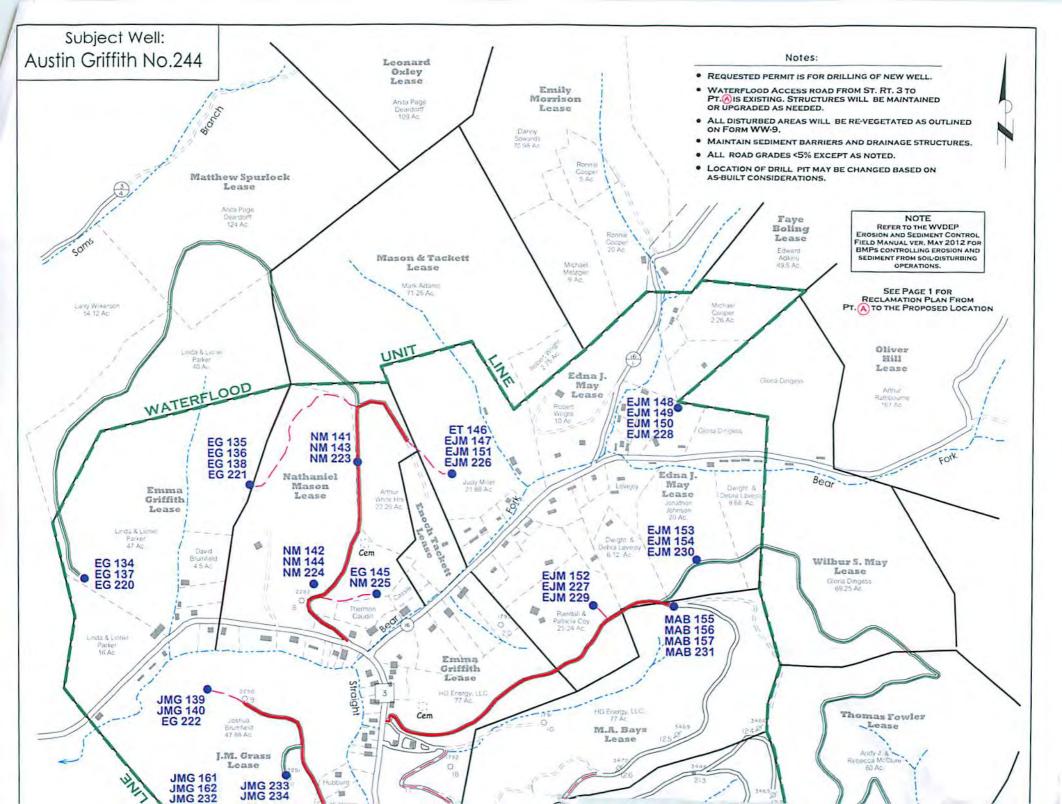
Reclamation Plan For:

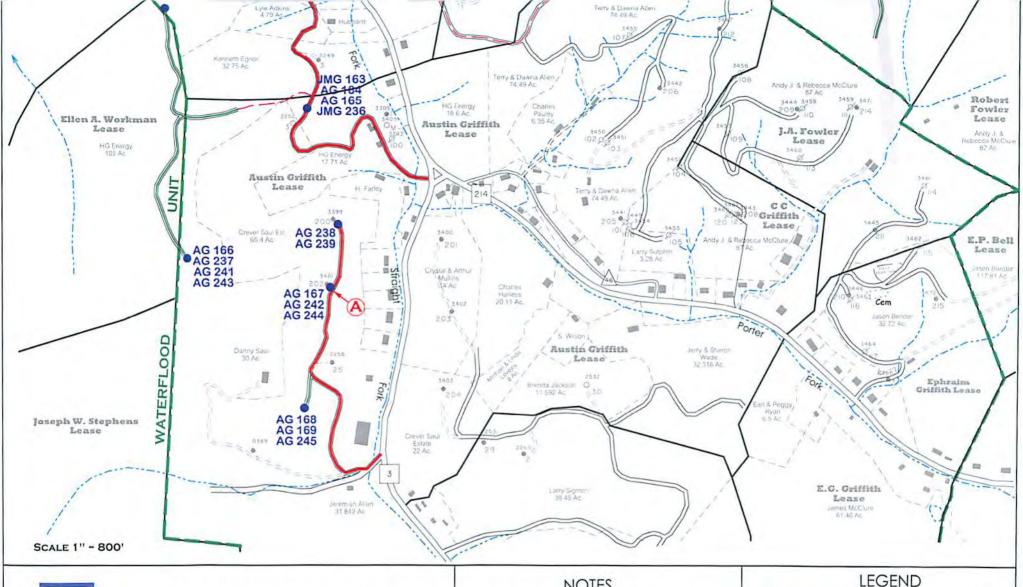


Notes:

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- ACCESS ROADS ARE EXISTING AND WILL BE MAINTAINED TO WVDEP STANDARDS.
- STOCKPILE TOPSOIL FOR RE-DRESSING LOCATION DURING RECLAMATION
- 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.









AUGUST 19, 2015

GRIIFTHSVILLE WATERFLOOD

Lincoln County, W.Va.

RECLAMATION PLAN SHOWING ROAD SYSTEMS TO BE USED FOR 2015-16 **DRILLING PROGRAM** (NORTH)

NOTES

- 1. REFER TO THE WVDEP EROSION AND SEDIMENTATION CONTROL MANUAL (VER. MAY 20, 2013) FOR BMP'S CONTROLLING **EROSION AND SEDIMENTATION FROM ALL** SOIL-DISTURBING OPERATIONS.
- 2. SEE PAGE ONE OF RECLAMATION PLAN FOR DETAILS OF NEW ROAD CONSTRUCTION AND ROAD UPGRADES FROM POINT (A) TO DRILL SITE LOCATION.
- 3. EXISTING WATERFLOOD ACCESS ROADS WILL BE MAINTAINED IN PRESENT CONDITION. THESE ROADS WERE CONSTRUCTED UNDER CONDITIONS SET FORTH IN VARIOUS DRILLING PERMITS ISSUED BY WVDEP-OOG PRIOR TO 2015 (AS SHOWN). SEE PERMITS ON FILE FOR MORE DETAIL.

AG 216

EXISTING WATERFLOOD ROADS TO BE USED.

OTHER EXISTING MAIN WATERFLOOD ROADS (POSSIBLE ACCESS).

EXISTING LEASE OR FARM ROADS TO BE UPGRADED.

NEW ROADS TO BE CONSTRUCTED.

LOCATION FOR PROPOSED WELLS

> POTENTIAL WATER SUPPLY SOURCE TO BE SAMPLED (LOC. APPROX.)

PAGE 2

