

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 04, 2015

WELL WORK PERMIT Secondary Recovery Well

This permit, API Well Number: 47-4303479, 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: MA BAYS 156

Farm Name: HG ENERGY, LLC

API Well Number: 47-4303479

Permit Type: Secondary Recovery Well

Date Issued: 06/04/2015

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action</u>.

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 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.

4303479S CK# 300Z \$650°

FORM WW-3 (A) 1/12



1) Date:	April 10, 2	2015				
2) Operato	r's Well	No.	МА Ва	ys 156		
3) API We	ll No.:	47			-	
		State	_	County	_	Permit
4) UIC Pen	mit No.	UIC2I	R04301	AP		

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

5) Surface Own (a) Name Address (b) Name Address	ner(S) To Be Served HG Energy, LLC 5260 Dupont Road Parkersburg, WV 26101 Dwight Lovejoy 5 Bethel Drive	Name	NA	eclaration Of Record
(c) Name Address 6) Inspector Address Telephone	Jeremy James P. O. Box 147 Ona, WV 25545 304-951-2596	Name Address 7) (c) Coal L Name Address	essee with Decla	aration Of Record
(1) The Appl parties inv (2) The plat (s) The Const plan for en	ERSONS NAMED ABOVE: You ship ication For A Liquid Injection or Waste I wolved in the drilling or other work; surveyor's map) showing the well location truction and Reclamation Plan on Form Wrosion and sediment control and for reclamation proposed for the first injection or waste	Oisposal Well on Form WW- W-9 (unless thation for the si	Work Permit or -6; and ne well work is o	n Form WW-3(B), which sets out the only to plug a well), which sets out the
APPLICATION	YOU HAVE RECEIVED THESE DO WHICH ARE SUMMARIZED IN THE TION [(FORM WW-3(B)] DESIGNATE LL.	"INSTRUCT	IONS" ON THE	REVERSE SIDE OF THE COPY OF
Notice and App West Virginia Application and and Reclamation	It under Chapter 22-6 of the West Virginia plication and accompanying documents for Department of Environmental Protection depicted on the attached Form WW-6. On Plan have been mailed by registered or in certain circumstances) on or before the design of the contract of	or a Well Wor , with respect Copies of this certified mail	k Permit with the to a well at the Notice, the Applor or delivered by l	e Chief of the Office of Oil and Gas, the location described on the attached lication, the plat, and the Construction mand to the person(s) named above (or
am familiar wit attachments and immediately re- the information are significant p	The person signing this document penalty of law that I have personally example the information submitted in this document that, based on my inquiry of those individes ponsible for obtaining the information, I be is true, accurate and complete. I am awar penalties for submitting false information, of fine and imprisonment.	nined and ent and all duals elieve that e that there including	te the following Well Operator Address By: Signature:	g certification: HG Energy, LLC 5260 Dupont Road Parkersburg, WV 26101 Diane White Agent Diane White

APR 2 7 2015



Received

APR 2 7 2015

Office of Oil and Gas
WV Dept, of Environmental Protection

WW-2B	1
(5-12)	

Well No. MA Bays 156

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 Sampling Contractor		Sturm Environmental Labs	
		Sturm Environmental Labs	
Well Operator	HG Energy, L	LC	•
Address	5260 Dupont	Road	
	Parkersburg,	WV 26101	
Telephone	304-420-1119	9	

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 - 10001VGO

APR 2 7 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

WW-2B1
Page 2 - Continued

Well No.

M. A. Bays 156

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.

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.

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

- Jonathan Johnson
 Bethel Drive
 Yawkey, WV 25573
- Dwight Lovejoy
 5 Bethel Drive
 Yawkey, WV 25573
- * Randall Coy
 1 First American Way
 Westlake, TX 76262



APR 2 7 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

FORM WW-3 (B) 1/12



2) Operator's Well 1	No.	MA	Bays 156			
API Well No.:	47	æ	Lincoln	ile.	s	
	State	-	County	_		Permit
4) UIC Permit No.	LIIC2	R043	801AP			

STATE OF WEST VIRGINIA NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION

FOR THE	DEPAR	KIMEN	I OF EN	VIRO	NMENTA	LPROTECT	ION, OF	FICE OF O	IL AND G	AS
5) WELL TYPE: 6) LOCATION:	Liqui Elevatio	d Injectio	on 🔽]_ /		tion (not storag	ge)		aste Dispos	sal
0,200		Duval				unty Lincoln	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		gle Griffiths	sville 7.5
7) WELL OPERA			HC		Cot	8) DESIGNA	TED AGE			71.0
The state of the s		260 Dupon				0) DESIGNA	Addres		pont Road	
Add			, WV 2610	1			Addica		ourg, WV 261	101
9) OIL & GAS IN						10) DRILLIN	C CONTR	· ·	July, VVV 20	
	James	K TO BE	NOTIFI	ED				ed Upon App	ount of Dorm	14
							Be Determin	led Upon Appi	ovar or Perm	· · · · · · · · · · · · · · · · · · ·
	lox 147					Address				
Ona, W	N 25545					-				
11) PROPOSED V	WELL W		Drill Plug off o				_ / Rec			timulate Convert
12) GEOLOGIC T	CARGET	FORMA			ericange	Depth	2920	Feet (top) to 2937	Feet (bottom)
13) Estimated Dep					onth of exist			Feet	10	_ 1 001 (00110111)
14) Approximate				sh 340		Feet	Salt 1		Feet	
15) Approximate			390	311 540		- Teet	Sait -	190	_ reet	
16) Is coal being r					No					
				4050		C				
17) Virgin reservo					psig	g Source	Estimated			' (DITTD)
18) Estimated rese										psig (BHFP)
19) MAXIMUM I									ole pressur	
20) DETAILED I									S Fresh w	ater, produced
water, bactericide						uality and improv	e oil recove	ry.		
21) FILTERS (IF	ANY) _C	artridge fil	ters and/or	coal bed	filters					
22) SPECIFICAT	IONS FO	R CATH	ODIC PR	OTECT	TION AND	OTHER COR	ROSION C	CONTROL		
23) CASING AND	TUBING I	PROGRAI	M							
CASING OR		SP	ECIFICATI	ONS		FOOTAGE IN	TERVALS	CEMENT	р	ACKERS
TUBING TYPE	Size	Grade	Weight	New	Used	For Drilling	Left In	FILL -UP		
			per ft.				Well	OR SACKS		
								(CU. FT.)		/
Conductor									Kinds	201
Fresh Water	7"	LS	17#	X		490'	490'	CTS		1 120
Coal									Sizes	041
Intermediate										375" x 4.5"
Production	4 1/2"	J-55	10.5#	×		3107'	3107'	150 sks	Depths se	
Tubing	2 3/8"	J-55	4.6#	X	-	2720'	2720'	100 383	Depuis ac	2620'
Liners	2 3/0	0-00	4.0#	_^		2/20	2120	-	Perforatio	
Lineis										
			-					-	Тор	Bottom
01) 1 555 10 10 10	o or	. mars								
24) APPLICANT									1	900 00 00
	/ le			other co		/ dated	-00/00/100		11904	of record in the
Lincoln		C	ounty Cle	erk's off	fice in leas	se		Book 3		Page 271
			3	י סמי	7 2015					10-10-10-10-10-10-10-10-10-10-10-10-10-1

WW-9 Rev. 5/10

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API Number 47	
Operator's Well No. MA Bays 156	

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 HG Energy, LLC	<u> </u>	OP Code 494497948				
Watershed Branch of Straight For	k	Quadrangle Griffithsville 7.5'				
Elevation 945'	County_Lincoln	District Duval				
Description of anticipated Pit Wa	aste: Fluids accumlated while	drilling the subject well				
Do you anticipate using more tha	n 5,000 bbls of water to comp	lete the proposed well work? Yes No _X				
		If so, what mil.? 20 Mil				
Reuse Off Si	Application ground Injection (UIC Permi (at API Number te Disposal (Supply form WV	t Number) V-9 for disposal location)				
Additives to be used? Water, Soz Will closed loop system be used Drill cuttings disposal method? -If left in pit and plan to	Synthetic, petroleum, etc. NA ap, KCI ? No Leave in pit, landfill, removed o solidify what medium will be					
on August 1, 2005, by the Office provisions of the permit are enfo law or regulation can lead to enfo I certify under penalty application form and all attach	of Oil and Gas of the West V proceable by law. Violations of procement action. of law that I have personally ments thereto and that, base lieve that the information is					
Company Official (Typed Name	Diane White	APR 2 7 2015				
Company Official Title Agent		Office of Office and Gas WV Dept. of Environmental Protection				
Subscribed and sworn before me	this 10th day of A	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA ary I SUSANNE DULANEY 5260 Dupont Road Parkersburg West Virginia 28101				

	1	EGEND			
Property Boundary		Diversion CCCCCCCCC			
Road = = = = = = = = =		Spring O			
Existing Fence — X — X —		Wet Spot			
Planned Fence / /	/ —	Drain Pipe with size in in			
Stream		Waterway \longleftrightarrow	$\rightarrow \leftarrow \leftarrow \leftarrow$		
Open Ditch	· ->	Cross Drain			
Rock 635685		Artificial Filter Strip	XXXXXXXXXXXXXXXXXXX		
North N		Pit: cut walls			
Buildings		Pit: compacted fill walls			
Water wells W		Area for Land Applicatio	n of Pit Waste		
Drill site					
Proposed Revegetation Treatment: Acres I	Disturbed 1.0 ac	res Description	ion nU		
		Pievegetat	ion pH		
Lime3 Tons/acr					
Fertilizer (10-20-20 or equivalent)	, 500 _{lbs/a}	acre (500 lbs minimum)			
_{Mulch} Straw	1				
Muich	Tons/ac	re			
	Seed	Mixtures			
Area I			Area II		
Seed Type lbs/acre	e	Seed Type	lbs/acre		
Tall Fescue 40		Tall Fescue	40		
Ladino Clover 5		Ladino Clover	5		
Sediment Control should t	pe in place at a	all times			
A secolo.			- -		
Attach: Drawing(s) of road, location,pit and propos	sed area for land appli	cation.			
			The second second second second second		
Photocopied section of involved 7.5' topog	rapnic sneet.		Received		
Plan Approved by: Ragol D. Tru	vell)		APR 2 7 2015		
•					
Comments:			Office of Oil and Gas		
			WV Dept. of Environmental Protection		
0		a 3.5			
Title: District Inspector		Date: Opril 23,	2015		
Field Reviewed? (Lincoln) Yes	. () No			





