

#### 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

February 04, 2014

### WELL WORK PERMIT Secondary Recovery Well

This permit, API Well Number: 47-3305800, 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.R. DENNISON NO. 145

Farm Name: HILARY HEIGHTS LTD

API Well Number: 47-3305800

Permit Type: Secondary Recovery Well

Date Issued: 02/04/2014

## **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.

WW-3B 10/07



Liquid Injection X

1) Date	December 19, 2013				
2) Operator's Wel	J	. R. Denn	ison No	. 145	
3) API Well No.	47	-	033	-	
4) UIC Permit No	State .	τ	County JIC2R033	01AP	Permit

Waste Disposal

#### STATE OF WEST VIRGINIA

Gas Injection (not storage)

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

		District		Tenmile	09	Con		rison 🤧		Quadrangle		Salem 7.5'	596
7)	WELL OPERA	and the property.	HG Ener	gy, LLC		494497		The Call of the Control	ED AGENT	: Mi	ike Kirso	ch	
,	((222			ont Road						52	60 Dupo	nt Road	
			Parkersb	urg, WV 2	6101					Pa	rkersbu	rg, WV 26101	
)	OIL & GAS IN	NSPECTO	R TO BE	NOTIFIE	D:		10)	ORILLIN	G CONTRA	CTOR:			
,			Sam War						Nam	e			
			P. O. Box						Addres	s			
			Buckhan	non, WV 2	26201								
1)	PROPOSED V	WELL WO	ORK:	Drill			Drill Deepe		Redri		timulate		
						ld Forma al Chang	ition e in Well (specify		te New For	nation		Convert	
2)	Geological tar	get forma	tion		Fifth S	Sand	Dep	th	3,237	Ft. (Top) to		3,249 Ft.	(Bottom)
3)	Estimated dep	pth of com	pleted we	ell (or actu	al dept	h of exis	ting well)	3475' T	MD	Ft.			
14)	Approximate	water stra	ata depths	3:	Fresh		150	Ft.		Salt	1,32	25 Ft.	
5)	Approximate	coal seam	depths:			602		Ft.				5.	1201
16)	Is coal being n	nined in t	he area?			7	Tes	2	X No			12	116
17)	Virgin reserve	oir pressu	re in targ	et formati	on:			,250	psig.	Source		Estimated	CM -(
.8)	Estimated res	ervoir fra	cture pre	ssure:			2	,650	psig.				
					45 45 45 45 45 45			n		2 400			
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19)							Volume per hou	_		Bottom Hole I			
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WW-3A 10/07



1) Date:	December	December 19, 2013				
2) Operator's We	J. R. Denn	ison N	o. 145			
3) API Well No.	47	033				
	State	County		Permit		
4) UIC Permit N	o.	UIC2R03301AP				

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

	THE DEPARTMENT OF ENVIRONMENTAL		OFFICE OF OIL AND GIRD
5) Surface Owner		7 (a) Coal Operator Name	NA
(a) Name	Hilary Heights LTD - Beth A Taylor	9. Y 19. W	IVA
Address	142 Valley Street	Address	
5 T 1 T 1 T 2	Salem, WV 26424 6	5.43 C 10	With Declaration Of Record
(b) Name	Stacy & Lori Bokey		
Address	Rt. 1, Box 299 - 46	Name	NA
_	Mt. Clare, WV 26408	Address	
(c) Name			
Address		Name	
_		Address	
6) Inspector	Sam Ward	7(c) Coal Lessee Wit	th Declaration Of Record
Address	P. O. Box 2327		Wolf Run Mining Co.
	Buckhannon, WV 26201		2708 Cranberry Square
Telephone	389-7583	_	Morgantown, WV 26505
(2) The plat (su	e parties involved in the drilling or other work; urveyor's map) showing the well location on Form uction and Reclamation Plan on Form WW-9 (un out the plan for erosion and sediment control an	n WW-6; and nless the well work	n Form WW-3(B), which t is only to plug a well), for the site and access road.
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Oil and Gas Privacy Notice

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 course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at:

Signature

WW-2B1

77 CAL 210. 0. 20. 20. 20. 20. 20. 20. 20. 20. 20	Well No.	J.R.	Dennison	No.	145
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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.

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	e 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.

No known Water Supply Sources are located within 1000' of proposed well but many water sources have been tested in conjunction with this Wolf Summit drilling program

Pertinent to this well site are:

Stacy & Lori Bokey Rt. 1, Box 299 - 46 Mt. Clare, WV 26408 Hilary Heights - Attn: Beth A Taylor 142 Valley Street Salem, WV 26426

02/07/2014

Form WW-9		Page	3 of	3
Rev. 10/94	•	API Number 47-	033 -	
		Operator's Well No. J. R. Den	mison No. 14	5

# 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

	GENERAL PERM	UT FOR O	IL AND GAS PI	T WASTE :	DISCHARGE	•	
Operator	HG Energy, L	LC			• 0	P Code 4	194497948
Watershed	Ten Mile Cree	lc			Quadrangle	Salem '	7.5'
Elevation	1218'	County	Harris	on	District	Tenni	le
Description of	anticipated Pit Waste:I	luids enco	untered in drilli	ng shallow	well.		
Do you anticip	oate more than 5,000 bbls of w	ater to com	plete the proposed	well worl	Yes	No X	
Will a synthet	ic liner be used in pit?	Yes	If so, what mi	l.? <u>20</u>	Mil.		12/23/201
Proposed Disp	oosal Method For Treated Pit	Wastes:				•	12/25/25
_	X Land Applicatio		•				MAG
_			Permit Number				<u> </u>
	Reuse (at API N Off Site Disposa	-	orm WW-9 for disp	osal location	2)		<u> </u>
<del>-</del>	<del></del>	xplain			·• <b>/</b>		)
Drilling medic	m anticipated for this well?	ir, fresh wa	iter, oil based, etc.	Air, F	resh Water		
	If oilbased, what type? Syntl			NA			
Additives to be	•						
	disposal method? Leave in pit					T 1	, 31
	If left in pit and plan to solidi Landfill or offsite name/perm		dium will be used	? Cement, I	ime, sawdust N	lative sou, cen	ient, lime
applicable law I this application for obtaining t penalties for so Company Off	sions of the permit are enforce or regulation can lead to enfo certify under penalty of law to more and all attachments the information, I believe that abmitting false information, in itself also and all attachments in its information and all attachments the information, in its information, in its information and its information are included in its information.	rcement act hat I have p ereto and tl the informa	ion. ersonally examine uat, based on my in tion is true, accura possibility of fine	ed and am fanquiry of the ate and comporting or imprison	miliar with the i se individuals in plete. I am award ment.	nformation sub nmediately resp	omitted on consible
Subscribed an	and sworn before me this	19 L he	_day of	'cm	STATE	ÚTEICIRUSEAI OTARY PUBLI OF WEST VIE NA L PETHTEI	C
Form WW-9					H 52 Parkersbu	IG Energy, LLC 60 Dupont Road irg, West Virginia sion Expires Nov.	26101

Property Boundary

### Legend

Diversion

Road	=======================================	Spring		
Existing Fence	xx	Wet Spot	8	
Planned Fence	_//_	Drain Pipe		
Stream		Waterway	$\Leftrightarrow$ $\Leftrightarrow$ $\Leftrightarrow$	
	-7 -7	Cross Drain	77/1/1/1/1/	
Open Ditch	300000	Filter Strip	XXXXXXXXXX	
Rock	0000000	Pit: Cut Walls	Cumin	
		The Out Walls		
North	. N	Pit: Compacted		
Buildings		Fill Walls	ATTITION .	
Water Wells	$\otimes$	Area of Land	(======================================	
Drill Site	$\oplus$	Application of Pit Waste	(2) 17 2 1 3 - 2	
Mulch	Straw 2 Tons/	Correct to pH 6.5  500 Lbs./Acre (500 land)  Acre  MXTURES  Seed Type	Area II (Road)Lbs/Ac.	
Tall Fescue	40	Tall Fescue	40	
Ladino Clover	5	Ladino Clover	SINGO	
	est and a distance		COLV	
Attach: Drawing(s) of road, location, p Photocopied section of involve	it and proposed area for land applicated 7.5' topographic sheet.	tion	JAN - 2 2014  JAN - 2 2014  Office of Oil and Gas Prote	ction
	Λ 1	Cm 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Plan approved by:	- PWarstII	Mic	had by Joh	
Comments: Pre-S		ned areas as som		Der
MY DEPE	+SManual - Upg 1	note Ets as		
Title:	4 Gas Inspector		Date: 12/2013	

(X) Yes

Field Reviewed?

) No

(

# **Reclamation Plan For:**

# J.R. Dennison No. 145

#### NOTE

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

Hilary Heights, LTD - Surface Owner

5DW 12/23/2013 MAG

Old Lease Road Serves as Diversion Existing Vegetative Filter Strip SEA 3 Hilary Heights, LTD - Surface Owner 100' of <5% Grade Notes: See Pages 2 & 3 for Road Details to County Road

- REQUESTED PERMIT IS FOR DRILLING OF NEW WELL.
- ACCESS ROADS FROM COUNTY ROAD TO LOCATION ARE EXISTING. ROADS 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.







