

#### 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 25, 2013

#### WELL WORK PERMIT

#### Rework-Secondary Recovery

This permit, API Well Number: 47-10301544, 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: H. NOLAN NO. M-17

Farm Name: WV PUBLIC LAND CORP.

API Well Number: 47-10301544

Permit Type: Rework-Secondary Recovery

Date Issued: 10/25/2013

### **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</u> 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.
- 8. If well work related activities require the use of water obtained by withdrawals from waters of this state in amounts that exceed two hundred ten thousand gallons during any thirty day period, the operator is required to consult, and adhere to, the guidance provided by DEP's Water Withdrawal Guidance Tool prior to any water withdrawals.

WW-3B 10/07



1) Date				ugust 13,	2013		
2) Operator's Well No.			. Henry Nolan No. M-17				
	3) API Well No.	47	-	103		1544	
	- 15 years 17 T	State		County		Permit	
	4) UIC Permit No		Ţ	JIC2R0950	1AP		

# 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 TYI	PE:	Liquid	Injection	X		Gas Injectio	n (not stora	age)	Waste	Disposal		
District   Green   County   Wetzel   Quadrangle   Centerpoint 7.5"	6) LOCATION	V:	Elevation	1000'			Wa	tershed	Piney	Fork			
		Distric	ct	Green		Coun	tyWet	zel		Quadrangle	Cen	terpoint 7.5"	
	7) WELL OP	ERATOR:	HG Energ	gy, LLC		49449794	8 8) D	ESIGNATI	ED AGENT	: M	ike Kirsc	h	
OIL & GAS INSPECTOR TO BE NOTIFIED:   Name   Address   P. O. Box 85   Smithfield, WV 26178   Smithfield, WV 26178   Proposed Well (WV 26178   Proposed WV 26178   Proposed Well (WV 26178   Proposed W							_			. 52	260 Dupoi	nt Road	
Name   Derek Haught   Address   P. O. Box 85   S. Simifield, WV 26178   PROPOSED WELL WORK:   Drill   PROPOSED WELL WORK:   Drill   Plug Off Old Formation   Other Physical Change in Well (specify)   Perforate New Formation   Other Physical Change in Well (specify)   Other Physical Change in Well (specify)   Perforate New Formation   Other Physical Change in Well (specify)   Other Physical Change in Well (specify)   Perforate New Formation   Other Physical Change in Well (specify)   Perforate New Formation   Other Physical Change in Well (specify)   Perforate New Formation   Other Physical Change in Well (specify)   Perforate New Formation   Other Physical Change in Well (specify)   Proposed Well (specify)   P			Parkersb	urg, WV 2	6101					Pa	arkersbur	g, WV 26101	
Address	OIL & GAS	SINSPECT	TOR TO BE	NOTIFIE	D:		10)	DRILLING	CONTRA	CTOR:			
PROPOSED WELL WORK:   Drill Dept									Name	е			
PROPOSED WELL WORK:   Drill   Drill Deper   Redrill   Plug Off Old Formation   Perforate New Formation   Perforate New Formation   Convert		Addres					_		Address	S			
Plug Off Old Formation Other Physical Change in Well (specify)  2) Geological target formation Gordon Opeth 2,868 Ft. (Top) to 2,930 Ft. (B 303) Estimated depth of completed well (or actual depth of existing well) 3050  Estimated depth of completed well (or actual depth of existing well) 3050  Estimated depth of completed well (or actual depth of existing well)  Approximate water strata depths: Fresh 105 Ft. Salt 2,000 Ft.  Approximate coal seam depths: 900 Ft.  Approximate in the area? Yes X No Virgin reservoir pressure in target formation: 1,400 Psig. Source Estimated  Estimated reservoir fracture pressure: 3,500 Psig.  MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 bbl Bottom Hole Pressure 2,332 pt  Bottom Hole Pressure 2,332 pt  Fresh water, produced water, bact and other chemicals as needed to maintain water quality and improve oil recovery.  The Filters (IF ANY) Cartridge filters and/or coal bed filters  SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL  CASING AND TUBING PROGRAM  CASING OR SPECIFICATIONS FOOTAGE INTERVALS CASING AND TUBING PROGRAM  CASING OR SPECIFICATIONS FOOTAGE INTERVALS CEMENT FILLIP OR SACUS (MEAT)  ASSOCIATED TO START OF CATHODIC PROTECTION AND OTHER CORROSION CONTROL  COal  COAL  COAL  COAL  COAL  CASING OR SPECIFICATIONS FOOTAGE INTERVALS CEMENT FILLIP OR SACUS (MEAT)  ASSOCIATED TO START OF CATHODIC PROTECTION AND OTHER CORROSION CONTROL  COAL  C			Smithfiel	d, WV 26	178		_						
Other Physical Change in Well (specify)  2) Geological target formation Gordon Depth 2,868 Ft. (Top) to 2,930 Ft. (B 3) Estimated depth of completed well (or actual depth of existing well) 3050' Ft.  4) Approximate water strata depths: Fresh 105 Ft. Salt 2,000 Ft.  5) Approximate coal seam depths: 900 Ft.  6) Is coal being mined in the area? Yes X No  7) Virgin reservoir pressure in target formation: 1,400 psig. Source Estimated  8) Estimated reservoir fracture pressure: 3,500 psig.  9) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 bbl Bottom Hole Pressure 2,332 pt.  10) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INJECTED, INJECTION ADDITIVES and other chemicals as needed to maintain water quality and improve oil recovery.  11) FILTERS (IF ANY) Cartridge filters and/or coal bed filters  23) CASING AND TUBING PROGRAM  24) CASING OR SPECIFICATIONS FOOTAGE INTERVALS CEMENT FILLUP OR SAGNING OR Weight New Used For Drilling Left in Well OR SAGNING Casing Tension  23) CASING AND TUBING PROGRAM  24) APPLICANTS OPERATING RIGHTS were acquired from Henry & Mary Nolan	1) PROPOSE	D WELL V	VORK:										
Estimated depth of completed well (or actual depth of existing well)  4 Approximate water strata depths:  Fresh  105  Ft.  Salt  2,000  Ft.  Approximate coal seam depths:  900  Ft.  Source  Estimated search or paid of the area?  Yes  X  No  Virgin reservoir pressure in target formation:  1,400  psig.  Source  Estimated sestimated reservoir fracture pressure:  3,500  psig.  MAXIMUM PROPOSED INJECTION OPERATIONS:  Volume per hour  25 bbl  Bottom Hole Pressure  2,332 psign and other chemicals as needed to maintain water quality and improve oil recovery.  Fresh water, produced water, bact and other chemicals as needed to maintain water quality and improve oil recovery.  Extra FILTERS (IF ANY)  Cartridge filters and/or coal bed filters  SPECIFICATION FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL  CASING OR  SPECIFICATIONS  FOOTAGE INTERVALS  CEMENT FILLUP  PACKED  AND TUBING TYPE  Size  Grade Weight New Used For Drilling Left in Well  Conductor  Cresh Water  Solve  Solve  Size  Grade Weight New Used For Drilling Left in Well  Conductor  Co									e New Forn	nation		Convert	
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Approximate coal seam depths:  900 Ft.  166 Is coal being mined in the area?  Yes X No  177 Virgin reservoir pressure in target formation:  1,400 psig.  Source Estimated  188 Estimated reservoir fracture pressure:  9,500 psig.  199 MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour 25 bbl Bottom Hole Pressure 2,332 psignal psign	3) Estimated	depth of co	ompleted we	ll (or actu	al dept	h of existin	g well)		3050'	F	t.		
Second being mined in the area?   Yes   X   No   No	14) Approxima	te water s	trata depths		Fresh		105	Ft.		Salt	2,00	0 Ft.	
Yes   X   No   No   No   No   No   No   No	5) Approxima	te coal sea	m depths:			900		Ft.		_			DMH
Sestimated reservoir pressure in target formation:   1,400   psig.   Source   Estimated						Ves		_ x	No				8-19
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CASING OR SPECIFICATIONS FOOTAGE INTERVALS CEMENT FILLUP OR SACKS (OUT PT.)  CONDUCTOR  Conductor  Fresh Water 8 5/8" Is & ST&C 20# X 256' 256' Resting Casing Tension  Coal  Intermediate  Production 4 1/2" J-55 10.5# X 2979' 2979' Existing Casing Dapths Set  Publing 2 3/8" J-55 4.6# X 2790' 2790'  Ciners  Coal  APPLICANTS OPERATING RIGHTS were acquired from Henry & Mary Nolan	21) FILTERS	(IF ANY)		Cartridge	filters	and/or coal	bed filters						
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Conductor   Size   Grade   Weight   New   Used   For Drilling   Left in Well   OR SACKS (OU. FT.)   AS	23) CASING A	ND TUBI	NG PROGRA	AM									
TUBING TYPE   Size   Grade   Weight   New   Used   For Drilling   Left in Well   OR SACKS (OU.FT.)   AS	TAGING OD		CDECII	PICATION	JC		FOOTAGE	INTERVAI	r.S	CEMENT E	TILLIP	PACK	ERS
Conductor   S 5/8"   LS & ST&C   20#   X   256'   256'   Esting Casing   Tension		Size		CONTRACTOR OF COMME	1	Used	1.00.00.00.00.00.00.00.00.00.00.00.00.00				The same of the same of	1 1 1 1 1 1 1	
Second   S	1477540 3525	Dize	Grade	Height	11011	0000				PECO		-	
Coal		8 5/8"	LS & ST&C	20#	X		256'	2	56'	Rosting Cas	ine	Tension	
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Liners  Environmental Perforations Top Botto  24) APPLICANTS OPERATING RIGHTS were acquired from Henry & Mary Nolan		4 1/2"	J-55	10.5#	X		2979'	2	979'	Existing Cas	ing time	Depths Set	
APPLICANTS OPERATING RIGHTS were acquired from  Henry & Mary Nolan	Tubing	2 3/8"	J-55	4.6#	X		2790'	2	790'	WINDE	Oc. C	265001101	1
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			Art A						600	1			
			ATING RIC				-					Na District	
by Deed Lease X Other Contract Dated September 17, 1897 of record in the Tyler County Clerk's Office in Lease Book 46 at Page 93	by De	ed	Lease	X	-								the

10/25/2013

# State of West Virginia Division of Environmental Protection Section of Oil and Gas

Well Operator's Report of Well Work

Farm name.	TATES			WOLK WOLK	•	
rarm mame:	WVA. PUBLI	C LAND CORP.	Operator	Well No.:	H. NOLANI	N_17
LOCATION:	Elevation:	1,000.00 Qua	drangle: C	ENTER POINT	1	, H-T /
	District	CDEE				
	Latitude:	GREEN 6250 Feet So	C	ounty: WETZ	EL .	:
	Longitude	6250 Feet So 1900 Feet We	utn of 39	Deg. 30Min	· Sec.	
Comm	_	TOCC NE	sc 01 80	Deg. 40 Mi	n. Sec	
company: PEN	MACIF BEODD	CTS COMPANY				
F.	U. BUX 5519		Casing	Used in		
ATE	NNA, WV 26	105-5519	1 &	ĺ	Left :	Cement
Agent: JAM	ES A. CREWS		Tubing	Drilling	in Well	Fill Up
					   +11 WETT	TCu. Ft.
Inspector:	RANDAL MICK		Size		1	
Lermic ISSA	ed:	05/12/93			j ···	i i
METT MOLK C	Ommenced.	9/14/93	<b> </b>		[ ·	j. i
Well work C	OMDIATAA.	10/16/93				
Verbal Plug	ging		8 5/8	•==		l' [
Permission Rotary X Total Depth	granted on:		0 3/8	256	256	100 Sks.
Total Depth	(feet)	Rig	1 1		   ::	
Fresh water	depths 7ft	050	4 1/2	2979.00		!!!
				2979.00	2979.00	300 Sks.
Salt water o	lepths (ft)	N/A	!!!		.1	
				·	U .	
Is coal bein	ng mined in	area (Y/N)?_N				
Coal Depths	(ft):		1			i
					·	· · ·
OPEN FLOW DA	mλ		•			
- Lack Pr	TU		•		. •	•
Produci	ng formatio	n Comite		•	•	
Gas: In	itial open		71 - 1	Pay zone d	epth (ft)	2868 - 293
			/ O O T T . III.	rriar open	flow *	Bb1/d
T1	Me Of Open	+ 1 0 1 1		-am obell TT	OW 7	Bbl/d
Static	rock Pressu	repsi	urtial and	final test	s	Hours
* Water Inj	ection Well		a (surrace	pressure)	after	Hours
Second	producing fo	ormation		Pau gone d		
Gas: In	itial open	flow MCF	d Oil: Ini	Pay zone do	epth (ft)	
r I. Ti	nal open flo	iw wan	/-1	al open flo	TOW	Bb1/d
Static	cock Pressu	flow between in	uitial and	final toat		Bbl/d
	Tock Flessul	repsi	g (surface	pressure) a	fter	Hours
						Hours
NOTE: ON BACI	OF THIS R	FORM PUT THE	BOLLOW	• -		FD
INTERVALS, F	RACTURING 120	TORM PUT THE OR STIMULATING, ATIC DETAILED	FOLLOWING:	1). DETAI	LSOBETE	FORATED
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INCLUDING CON	L ENCOUNTER	RED BY THE WELL	BORE	RECORD OF	MIXEL FOR	LATIONS,
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			-0	<b>○</b> ff	HELL FOR	. of
		For: PENNZOIL	PRODUCTS	COMPANY	WAT De Ha	tment O'
		P	< []] M	) /)	MAEDGA	al Protection
		By: J	wolly FK	sul F	APANINI-	7 (A)
,	•	Date: /		12/6/93	WIN DSDE	noiton
				· · · · · · · · · · · · · · · · · · ·	"COMENIO	COLECTION
•				Er	MILOLILL	0/05/0040

#### TREATMENT:

Perforated: 2893 - 2896 6 Holes

2900 - 2910 20 Holes

300 Gal. 15% HCL Acid, 281 Bbl. Gelled Water & Treated:

1900# 80/100 Sand & 3700# 20/40 Sand

#### WELL LOG:

T.D.

Sand & Shale	0 - 535
Sand	535 - 562
Shale	562 - 650
Sand	650 - 700
Sand & Shale	700 - 1130
Sand	1130 - 1240
Sand & Shale	1240 - 1430
Sand	1430 - 1460
Shale .	1460 - 1500
Sand	.1500 <b>-</b> 1540
Sand & Shale	1540 - 2030
Little Lime	2030 - 2044
Pencil Cave	2044 - 2053
Big Lime ·	2053 - 2120
Shale	2120 - 2150 <sup>-</sup>
Big Injun	2150 - 2300
Shale	2300 - 2868
Stray	2868 - 2873 Lan
Gordon	2873 - 2930

3050

Received

SEP 7 3 2013

Office of Oil and Gas WV Dept. of Environmental Protection WW-3A 10/07



1) Date:		August 13	, 2013		
2) Operator's We	ll No.	Henry No.	lan No.	M-17	
3) API Well No.	47	103		1544	
2.7.	State	County		Permit	
4) UIC Permit N	0.	UIC2R095	501AP		

# STATE OF WEST VIRGINIA

5) Surface Owner(s) To Be Served	7 (a) Coal Operator	
(a) Name WV Public Lands Corporati	Name	NA
Address Charleston, WV 25305	Address	
Charleston, WV 25305		
(b) Name	7 (b) Coal Owner(s	) With Declaration Of Record
Address	Name	NA
	Address	
(c) Name	-	
Address	Name	
	Address	
6) Inspector Derek Haught	7(c) Coal Lessee W	ith Declaration Of Record
Address P. O. Box 85		NA
Smithfield, WV 26178	-	
Telephone 304-206-7613		
		rm and the following documents:
sets out the parties involved in the drilling or other work (2) The plat (surveyor's map) showing the well location on Fo (3) The Construction and Reclamation Plan on Form WW-9 ( which sets out the plan for erosion and sediment control a	; orm WW-6; and unless the well wor	k is only to plug a well),
(2) The plat (surveyor's map) showing the well location on Fo (3) The Construction and Reclamation Plan on Form WW-9 (	; orm WW-6; and unless the well wor and for reclamation OU HAVE RIGHTS F	k is only to plug a well), for the site and access road.  REGARDING THE APPLICATION
sets out the parties involved in the drilling or other work (2) The plat (surveyor's map) showing the well location on Fo (3) The Construction and Reclamation Plan on Form WW-9 ( which sets out the plan for erosion and sediment control as the date proposed for the first injection or waste disposal is HE REASON YOU RECEIVED THESE DOCUMENTS IS THAT Y WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FORM	corm WW-6; and unless the well wor and for reclamation OU HAVE RIGHTS For WW-3(A) DESIGNAtion with the attached Application and Reclamation Plan harmonic word well operator proposition of the Application and Reclamation Plan harmonic word was supplicated to the attached Application and Reclamation Plan harmonic was supplicated to the attached Application and Reclamation Plan harmonic was supplicated to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation Plan harmonic was supplied to the attached Application and Reclamation and Reclamation Plan harmonic was supplied to the attached Application and Reclamation and Re	REGARDING THE APPLICATION ATED TO YOU. HOWEVER YOU  sees to file or has filed this Notice and and Gas, West Virginia Department of an and depicted on the attached Form the been mailed by registered or thances) on or before the day of the RECEIVED
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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 and the course of the parties of have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at:

WW-2B1

	Well No.	Henry	Nolan No. M-17	
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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 Nam	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 2000' of proposed well.

Office of Oil and C

Office of

Form WW-9 Rev. 10/94

	Page	3.	of	.3
API	Number 47-	103		1544
Operator's Well No.	Henry N	olan N	o. M-17	

# 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 Energ	gy, LLC		Ol	P Code 494497948	
Watershed	Piney For	k		Quadrangle	Centerpoint 7.5"	
Elevation	1000'	County	Wetzel	District	Green	
Description	of anticipated Pit Waste:	Fluids encoun	tered in drilling and	stimulating existing	g well.	
Do you antic	cipate more than 5,000 bbls	s of water to compl	ete the proposed well wo	ork Yes	No X	
Will a synth	etic liner be used in pit?	Yes	If so, what mil.?	20 Mil.		12
Proposed Dis	Reuse (at A	cation nd Injection (UIC : API Number	Permit Number	ation)		ДЛН 8-16-13 
	Other	(Explain	iii www-5 for disposar foc	ation)		)
Drilling med	lium anticipated for this w - If oilbased, what type?			NA		
	gs disposal method? Leave	in pit, landfill, ren	noved offsite, etc.	Leave in pit		
					Native soil, cement, lime	
	- Landfill or offsite name	permit number?				
applicable la this applicat for obtaining	visions of the permit are en aw or regulation can lead to I certify under penalty of tion form and all attachmen g the information, I believe r submitting false informat	enforcement action law that I have pents thereto and the that the informat	on. ersonally examined and a at, based on my inquiry o ion is true, accurate and	am familiar with the i of those individuals im complete. I am aware	nformation submitted on nmediately responsible e that there are significant	
		,	Diane CW		Office of Oil at	000
	Official Signature	/	Diane C. White	1110	HEO OII OI	10 Cao
	Official (Typed Name)	-	Accountant		Office of	
Company	Official Title		Accountant		SEP 93	ment of
Subscribed	l and sworn before me th	nis 13	day of Qui	gust 2013	WV Depart	Protection
My commis	ssion expires	NOV.	12,2018	The state of the s	OFFICIAL SEAL	
Form WW-				E OF WEST	NOTARY PUBLIC STATE OF WEST VIRGINI	

10/25/2013

Property Boundary

### Legend

Road		Spring	<del>&gt;</del>
Existing Fence	xx	Wet Spot	\bar{\bar{\bar{\bar{\bar{\bar{\bar{
Planned Fence .	_/_/_	Drain Pipe	
Stream		Waterway	$\longleftrightarrow$
Open Ditch	>	Cross Drain	
Rock	2000 S	Filter Strip	XXXXXXXXX
ROCK	200 MB	Pit: Cut Walls	Current .
		· ·	Vicini, in the second
North .	N	Pit: Compacted	7
Buildings '		Fill Walls	A THE TOTAL OF THE PARTY OF THE
Water Wells	(W)	Area of Land	
Drill Site		Application of Pit Waste	
			· .
	Are	oo T	
Proposed Revegetation Treatm			evegetation pH
Tioposed totogometon transit.	Are		
	Approx.	0.3 Ac.	
	0	correct to pH 6.5	
Lime	2 Tons/Acre or C ver (10-20-20 or Equivalent) 50	0.5 Do	lbs. Minimum)
Mulch			
2128247			
	SEED MI	XTURES	
Area	I (Location)		Area II (Road)
Seed Type	Lbs/Ac.	Seed Type	Lbs/Ac.
Tall Fescue	40	Tall Pescue	. 40 .
Ladino Clover	5	Ladino Clover	5
			61/2
<u> </u>			760 mg
Attach:			13 (2) 100 mg
Drawing(s) of road, location, p Photocopied section of involv	pit and proposed area for land application	on .	CEP A Gas collection
Photocopied section of mivory	st 7.5 topograpmo sheet.		RECEIVED
	<u></u>	· · · · · · · · · · · · · · · · · · ·	SEP 23 2013  Office of Oll and Gas Protection  Office of Oll and Gas Protection
Plan approved by:			N CONT.
Comments:			4.
- A	1 1 0		7. 8-10.10
Title:	+ Gel Inspector		Date: 8-15-17
Field Reviewed?	( 🖍 Yes	( )	No
The second se			

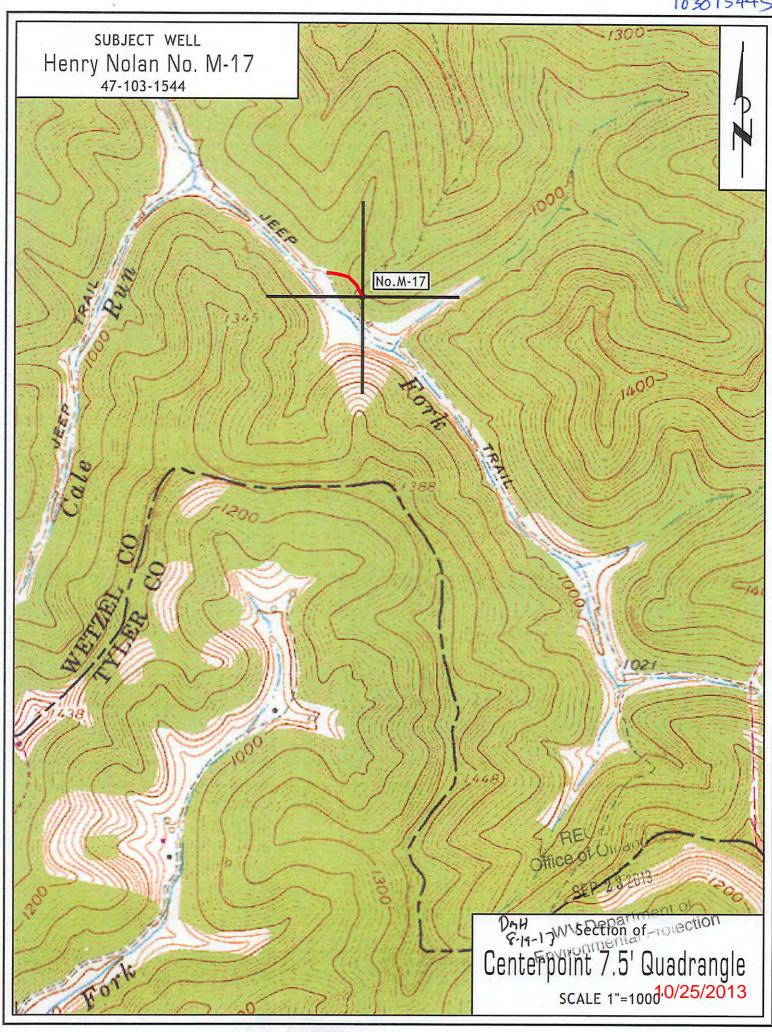
### Reclamation Plan For: Henry Noland No. M-17 47-103-1544 NOTE: WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT NO.47-103-1544. ONLY MINIMAL EARTHWORK WILL BE REQUIRED FOR PROPOSED WELL WORK. ALL DISTURBED AREAS WILL BE RE-VEGETATED AS PER THE SEEDING PLAN ON FORM WW-9. A SMALL WORKOVER PIT WILL BE CONSTRUCTED TO CONTAIN ANY FLUIDS RECOVERED DURING PROPOSED WELL WORK. Piney Use approximately 400' of existing access road. Maintain all drainage structures. Fork State of W.Va. - Surface Owner Office of On and Gas Road MA Debartment of Environmental Protection 1738 No.I-21 NOTE REFER TO THE WVDEP Notes: **EROSION AND SEDIMENT CONTROL** FIELD MANUAL VER. MAY 2012 FOR • Requested permit is for workover of existing well. BMPS CONTROLLING EROSION AND SEDIMENT FROM SOIL-DISTURBING • Access from County Road to well location is OPERATIONS. existing. Structures will be maintained. All disturbed areas will be re-vegetated as outlined on Form WW-9. Maintain sediment barriers and drainage structures.

10/25/2013 Note: Drawing not to Scale

• All road grades <5% except as noted.

as-built considerations.

•Location of work-over pit may be changed based on

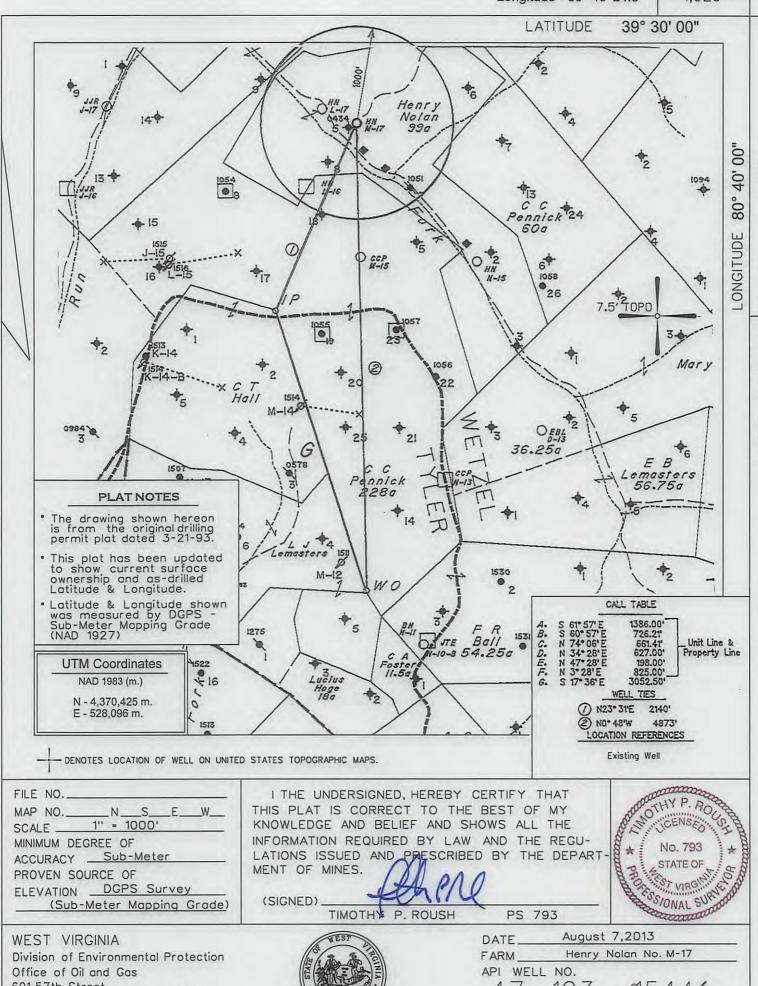


6,230'

58.

28

-atitude - 39°



601 57th Street Charleston, West Virginia 25304



47 - 10

WELL TYPE: OIL \_\_\_ GAS \_\_ LIQUID INJECTION\_X WASTE DISPOSAL \_\_\_ (IF "GAS") PRODUCTION \_\_\_ STORAGE\_\_ DEEP\_\_ SHALLOW\_ LOCATION: ELEVATION \_\_\_ \_ WATERSHED \_\_\_ Piney Fork 1,000" Wetzel Green DISTRICT\_ \_ COUNTY\_ Centerpoint 7.5 QUADRANGLE. ACREAGE \_\_ 28.5 Ac. State of West Virginia SURFACE OWNER\_ OIL & GAS ROYALTY OWNER HG Energy LLC et al 160 Ac. 10/25/2013 \_ LEASE ACREAGE\_ LEASE NO. \_\_\_\_\_24422-50 PROPOSED WORK: DRILL \_\_ \_ CONVERT\_\_\_ DRILL DEEPER\_\_\_ REDRILL\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_ PERFORATE NEW

OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON\_ \_ CLEAN OUT AND REPLUG\_ TARGET FORMATION Gordon \_ ESTIMATED DEPTH\_

WELL OPERATOR HG Energy, LLC **ADDRESS** 

5260 Dupont Road Parkersburg, WV 26101 DESIGNATED AGENT Mike Kirsch
ADDRESS 5260 Dupont Road

Parkersburg, WV 26101



#### HG Energy, LLC 5260 Dupont Road Parkersburg, WV 26101 (304) 420-1100 - Office (304) 863-3172 - Fax

CK#2540 103015445

August 13, 2013

Mr. Jeff McLaughlin WVDEP Division of Oil & Gas 601 57th Street Charleston, West Virginia 25304

RE:

Henry Nolan No. M-17 (API 47-103-1544)

Green District, Wetzel County

West Virginia

Dear Mr. McLaughlin:

Enclosed are the Forms WW-3A, WW-3B, WW-9, WW-2(B1), mylar of plat, reclamation plan, topo map and copy of the certified mailing receipt for a permit to stimulate the above-captioned injection well. Our check in the amount of \$650 is attached.

If you have any questions regarding this application, please call me at 304-420-1119 or email at dwhite@hgenergyllc.com.

Very truly yours,

Diane C White

Diane C. White

Enclosures

WV Public Lands Corporation - Certified cc:

Derek Haught - Inspector

RECEIVED Office of Oil and Gas SEP 23 2013

W/V Department of Environmental Protection

CUE IHICE of Oh