

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

March 17, 2014

WELL WORK PERMIT

Rework-Secondary Recovery

This permit, API Well Number: 47-3304064, 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: NATHAN GOFF NO. 59

Farm Name: JOHNSON, WM. R. & PAMELA

API Well Number: 47-3304064

Permit Type: Rework-Secondary Recovery

Date Issued: 03/17/2014

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



1) Date		J	anuary 14	, 201	4
2) Operator's Well	No.	1	Vathan Go	ff No	. 59
3) API Well No.	47	-	033	-	4064
	State		County	- 1	Permit
4) UIC Permit No		I	ЛС2R0330	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 TYPE:		Liquid	l Injection	X		Gas Inj	ection (not	storag	(e)	Waste Dispos	al	
6)	LOCATION:		Elevation	1037				Watershe	ed	Tenmi	ile Creek		
		District		Tenmile	09	Cou	inty	Harrison	33			olf Summit 7.5	692
7)	WELL OPERA	TOR:	HG Ener	gy, LLC		494497	948	8) DESIGN	JATEI	AGENT	: Mike Kin	rsch	
			5260 Duj	pont Road								pont Road	
			Parkersh	ourg, WV	26101						Parkersh	ourg, WV 2610	1
9)	OIL & GAS IN	SPECTO	OR TO BE	NOTIFIE	ED:			10) DRILL	ING C	ONTRAC	CTOR:		
			Sam War							Name	To Be Determined Upo	n Permit Approv	al
	14	Address	PO Box 2		2222					Address	8		
				non, WV	26201		_						
11)	PROPOSED W	ELL WO	ORK:	Drill	-		Drill D			Redril			
					9	ld Forma	tion e in Well (sp		orate I	New Forn	nation	Convert	
(2)	Geological targ	et forms	tion	Other	Fifth S		4.0000000000000000000000000000000000000	Depth		2,645	Ft. (Top) to	2,665 Ft.	(Bottom)
	Estimated dept			II (an eats						- Long	Ft.	2,000 11.	(Dottom)
13)									_	2771'			
(4)	Approximate w	ater str	ata depth	9:	Fresh		225	Ft.			Salt 1,	,340 Ft.	
5)	Approximate co	al seam	depths:				300	Ft.					Spw
6)	Is coal being mi	ined in t	he area?			Y	es		X	No			SPW
7)	Virgin reservoi	r pressu	re in targ	et formati	on:		60			psig.	Source	Estimated	
8)	Estimated reservoir fracture pressure:			1200			psig.	-					
9)	MAXIMUM PR	OPOSE	D INJEC	TION OPI	ERATIC	ONS:	Volume per	ne per hour 25 bbl/hr Bottom Hole Pressure 2400 psi				nsi	
(0)	DETAILED ID									_			- mark
U)	and other chem									DITTVES	Fresh water, proc	luced water, ba	actericides
1)	FILTERS (IF A	NY)		Cartridge	filters	and/or co	al bed filter	rs					
(2)	SPECIFICATION	ON FOR	CATHOL	DIC PROT	ECTIO	N AND O	THER COR	ROSION	CONTI	ROL			
				2000	20000			22-12-27-12	4000				
3)	CASING AND	TUBING	PROGR.	AM									
AS	ING OR		SPECII	FICATION	NS		FOOTA	GE INTER	VALS		CEMENT FILLUP	PACK	ERS
UB	ING TYPE	Size	Grade	Weight	New	Used	For Drillin	ng 1	Left in	Well	OR SACKS (CU. FT	(2)	
ond	luctor											Kinds	
res	h Water	8 5/8"	LS	20#	X		398'		398		Use Existing Casing	Tension	
oal												Sizes	
itei	rmediate											2.375" X 4.5	"
rod		4 1/2"	J-55	10.5#	X		2741'		274		Use Existing Casing -		
ubi	ng	2 3/8"	J-55	4.6#	X		2550'		2550	0'	460 sks	2450'	
ine	rs											Perforation	В
				J-gray)								Top Bot	ttom
4)	APPLICANTS (OPERA'			2 10 2 2		-	D. Goff et			NAME OF THE OWNER		
	by Deed		Lease		1. to	her Conti		Date	d	Januar	ry 19, 1899	of record in	the
			Harrison		Count	Clerk's	Office in	Leas	e	Book	326 at Page	274	

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

33040645R

Well Operator's Report of Well Work

Farm name:	MYERS, ROXANNA M.	Operator Well No.: NATHAN GOFF #59
LOCATION:	Elevation: 1,037.00	Quadrangle: WOLF SUMMIT
	District: TENMILE Latitude: 100 Fe Longitude 7900 Fe	eet South of 39 Deg. 17Min. 30 Sec

Company: PENNZOIL PRODUCTS COMPANY P. O. BOX 5519 VIENNA, WV 26105-5519 Agent: JAMES A. CREWS	Casing & Tubing	Used in		Cement Fill Up Cu. Ft.
Inspector: TIM BENNETT Permit Issued: 10/07/94 Well work Commenced: 11/06/94	Size			
Well work Completed: 12/23/94 Verbal Plugging Permission granted on:	8-5/8"	398'	398'	130 sks.
Rotary X Cable Rig Total Depth (feet) 2771' Fresh water depths (ft) 225'	4-1/2"	2740.5'	2740.5'	460 sks.
Salt water depths (ft) none encountered.				
Is coal being mined in area (Y/N)? N Coal Depths (ft): N/A				7
OPEN FLOW DATA * Water Injection Well				

Producing formation Fifth Sand	Pav zone depth	(f+ 126	45'-2665
Gas: Initial open flow * MCF/d Oil:	Initial open flow	* /-	Bb1/d
Final open flow * MCF/d	Final onen flow	*	Db1 /4
Time of open flow between initial a	nd final tests	*	Hours
Static rock Pressure * psig (surfa	ce pressure) after	*	Hours
Second producing formation	Pay zone depth	(ft)	
Gas: Initial open flow MCF/d Oil:	Initial open flow	_	Bb1/d
Final open flow MCF/d	Final open flow		Bb1/d
Time of open flow between initial an	nd final tests		Hours
Static rock Pressurepsig (surface	ce pressure) after		Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For:	PENNZOIL/PRODUCTS COMPANY	
	TEMMEDIES FRODOGIS COMPANY	
	By: Lu . () ()	
	Date: 1-12-94	

Completion Record

Perforated - Fifth Sand from 2652'-2654'
Treated with 300 gal. 15% HGL, 152 Bbls. gelled water & 5000# 20/40 sand.

Well Log

Shaley Sand	0'- 150
Sandy Shale	150'- 310
Pittsburgh Coal	310'316
Sandy Shale	316'- 405
Shale	405'- 740
Sand	740'- 770
Shale	770'- 810
Sand .	8101- 8801
Shale	8801- 9101
Sand	910'- 955'
Shale	955'-1000'
Sand	1000'-1100'
Shale	1100'-1240'
Sand	1240'-1365'
Shale	1365'-1400'
Sandy Shale	1400'-1665'
Limestone (Big Lime)	1665'-1785'
Sand (Big Injun)	1785'-1805'
Shale	1805'-2235'
Sand (Fifty foot)	2235'-2250'
Shale	2250'-2370'
Shaky Sand (Gordon)	2370'-2500'
Shale	25001-26451
Sand (Fifth)	2645'-2665'
Shale	2665'-2771'
T.D.	27711

WW-3A 10/07



1) Date:		January 1	4, 2014	
2) Operator's We	ll No.	Nathan G	off No.	59
3) API Well No.	47	033	4.	4064
	State	County		Permit
4) UIC Permit N	o.	UIC2R03	301AP	

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) Surface Owner(s) To Be Served	(a) Coal Operator	
(a) Name William R. & Pam Johnson	Name	NA
Address Rt. 4, Box 1000	Address	
Salem, WV 26426		
(b) Name	7 (b) Coal Owner(s	s) With Declaration Of Record
Address	Name	NA
	Address	
(c) Name	_	
Address	Name	NA
Address	Address	2766
	Zittureois	
6) Inspector Sam Ward	7(c) Coal Lessee W	Vith Declaration Of Record
		American Mountaineer Energy, Inc
	_	Rt. 2, Box 406
Buckhannon, WV 26201	_	
Telephone 389-7583		Clarksburg, WV 26505 26301
TO THE PERSON(S) NAMED ABOVE: You sho	uld have received this fe	orm and the following documents:
which sets out the plan for erosion and sediment. The date proposed for the first injection or waste disposed to the first injection or waste disposed to the REASON YOU RECEIVED THESE DOCUMENTS IS WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" OF ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL. Take notice that under Chapter 22-6 of the West Virginia Code, the Application and accompanying documents for a Well Work Permit we Environmental Protection, with respect to a well at the location design. WW-6. Copies of this Notice, the Application, the plat, and the Consecrified mail or delivered by hand to the person(s) named above (or	THAT YOU HAVE RIGHTS IN FORM WW-3(A) DESIGNATION OF THE PROPERTY OF THE PROPER	REGARDING THE APPLICATION ATED TO YOU. HOWEVER YOU ses to file or has filed this Notice and and Gas, West Virginia Department of an and depicted on the attached Form are been mailed by registered or
mailing or delivery to the Chief.		
The person signing this document shall	l make the following certificat	ion:
gr a)c d less of loss that I havealls non-rived and	am Well Operator	HG Energy, LLC
"I certify under penalty of law that I have personally examined and familiar with the information submitted in this document and all at		5260 Dupont Road
and that, based on my inquiry of those individuals immediately resp		Parkersburg, WV 26101
for obtaining the information, I believe that the information is true,		A A STATE OF THE S
and complete. I am aware that there are significant penalties for su		Diane C. White
false information, including the possibility of fine and imprisonmen		Accountant
and the state of t		
		5
	Signature	Diane C White
Oil and Gas Privacy Notice		
The Office of Oil and Gas processes your personal information, such Your personal information may be disclosed to other State agencies or regulatory requirements, including Freedom of Information Act is	or third parties in the course of b	ousiness or as needed to comply with statutory

have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at:

depprivacyofficer@wv.gov

U.S. Postal Service CERTIFIED MAIL... RECEIPT 8535 (Domestic Mail Only: No Insurance Coverage Provided) 9058 1,40 Postage PARKE 0007 Certified Fee 3,30 Postmark Return Receipt Fee (Endorsement Required) 2.70 - Here Restricted Delivery Fee (Endorsement Required) 0645 Total Postage & Fees \$ 2,40 Sent To Street, Apr. No.; or PO Box No. Rt. 2 R. or PO Box No. Rt. 2, Box 406 Clarksburg WV 26301

Received

FEB 26 2014

Office of Oil and Gas

WV Dept. of Environmental Protection





WW-2B1

Well No. Mathan Golf No. 59	Well No.	Nathan Goff No. 59
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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
<u> </u>	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.

Form WW-9 Rev. 10/94

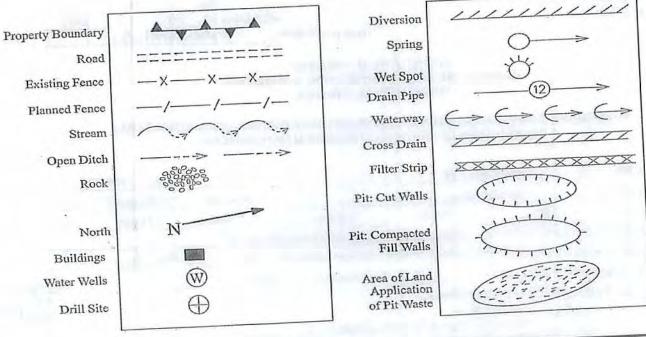
	Page_	3	of	3 .
	umber 47- 🛚	033	-]	4064
Operator's Well No.	Nathar	ı Golf l	No. 59	

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	y, LLC		o	P Code 494	1497948	
Watershed	Tenmile C	reok		Quadrangle	Wolf Summi		
Elevation	1037'	County	Harrison	District	Tenmile		
	fanticipated Pit Waste:		ered in stimulating e				
	pute more than 5,000 bbls	of water to comple	to the proposed well we	ork Yes	No X	-	
	tic liner be used in pit?	Yes	If so, what mil.?	20 Mil.		<n₩< th=""><th></th></n₩<>	
Proposed Dier	oosal Method For Treated X Land Applie					SDW	المار
-		ation d Injection (UIC Pa	ernit Number			1/25/12	
-	Rouse (at Al	21 Number					
-	Off Site Disp		WW-9 for disposal loca	ation)			
- Na::::::::::::::::::::::::::::::::::::		(Explain					
	im anticipated for this well If oilbased, what type? S			NA			
Additives to be			., 610.				
	disposal method? Leave in						
	If left in pit and plan to se Landfill or offsite name/p		m will be used? Cemer	nt, lime, sawdust	Native soil, o	ement, lime	
		ETIBLE INCHOST:				 _	
applicable law J this application for obtaining t	sions of the permit are end or regulation can lead to e certify under ponalty of h a form and all attachment be information, I believe the abmitting false information	nforcoment action w that I have pers s thereto and that, not the information	onally examined and a based on my inquiry o is true, accurate and a	on familiar with the in f those individuals im complete. I am aware	nformation submi mediately respon	itted on sible	
Company Off	icial Signature	<i></i>	Diane CWh	ite			
Company Off	icial (Typed Name)	n	liane C. White				
Company Off	icial Title	.A.	ccountant			•	
•		· · · · ·				 	
Subscribed at	nd sworn before me this		ay of Cana	đ	L/ otary Public		
My commissio	on expires	Nov	12, 2018				
Form WW-9					OFFICE NOTAL	CIAL SEAL RY PUBLIC WEST VIRGINIA PETHTEL BOTOS, LLC Upont Road Pest Virginia 26101 Expires Nov. 12:2018	2014

Legend



Prevegetation pH
-
Acre (500 lbs. Minimum)
5

SEED MIXTURES

or military improved.		Area II (Road)		
Area I (I Seed Type Call Fescue Ladino Clover	Lbs/Ac. 40 5	Seed Type Tall Fescue Ladino Clover	Lbs/Ac. 40 5	

Drawing(s) of road, location, pit and proposed area for land application Photocopied section of involved 7.5' topographic sheet.

ocopied been		
Plan approved by:	d+ mulch all distu	rbed arcas. Upgrade Ets 98
DOCOSE BELL		Date: 7/25/2014
Field Reviewed?	(X) Yes	() No

Reclamation Plan For: Nathan Goff No.59

Road

300' of 5-8% Grade

Waterflood

E

47-033-4064 Frac Permit 1/13/2014

NOTE

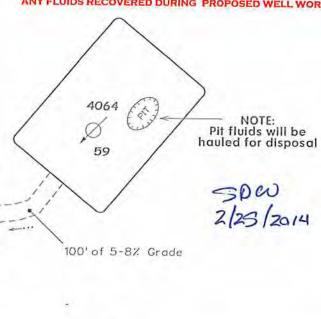
REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPS CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.

County



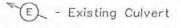
William & Pamela Johnson - Surface Owners

WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT NO.47-033-4064. 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.

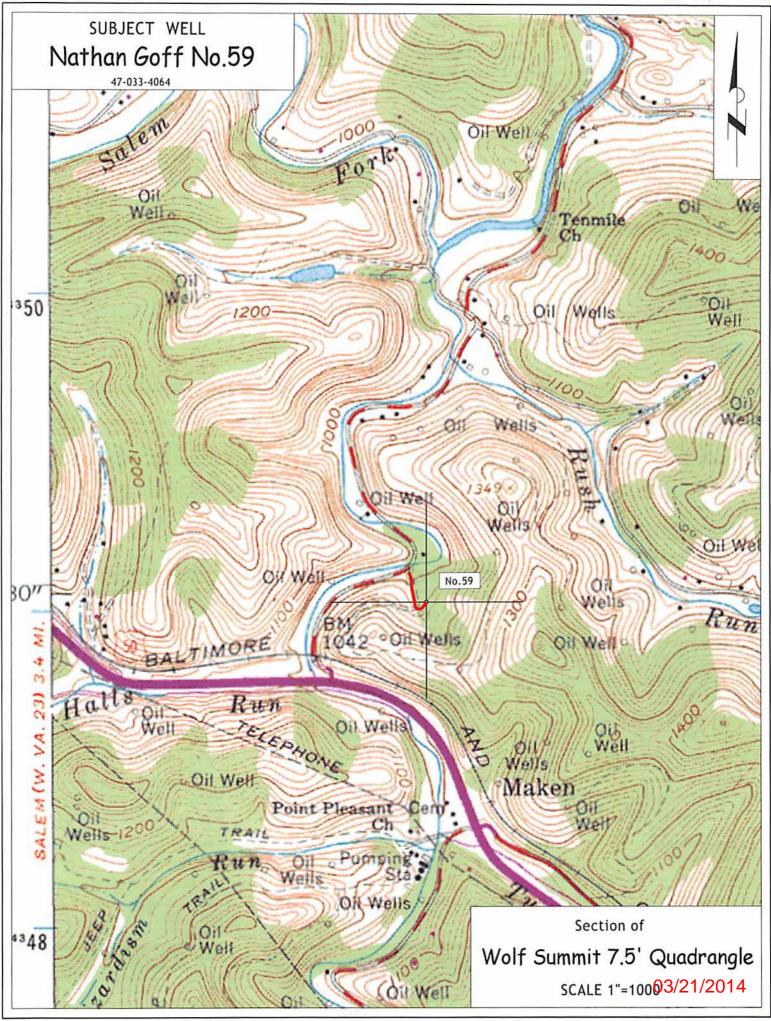


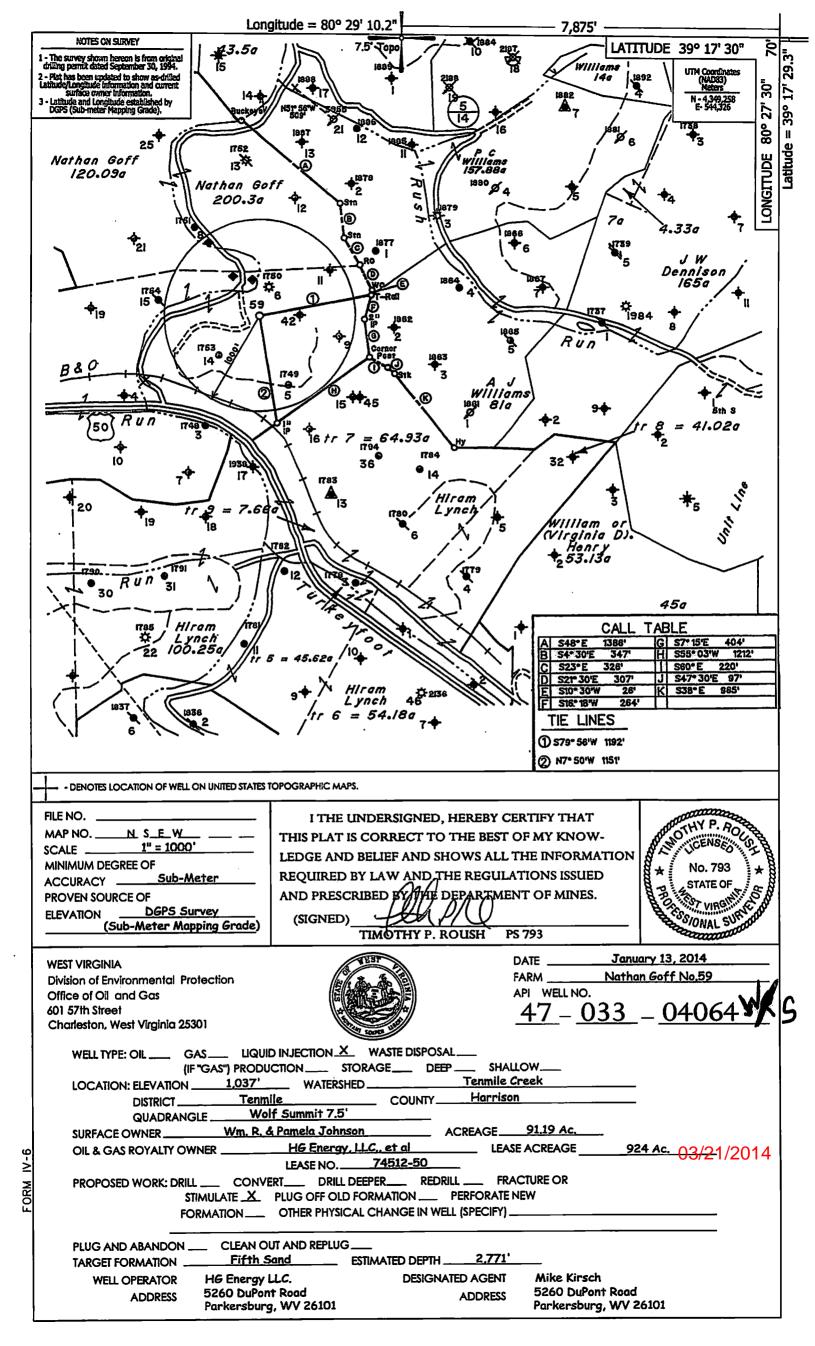
Notes:

- Requested permit is for re-frac of existing well.
- Location and access roads from Co. Rd. 5 to the well are existing. Structures shown will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Sediment barriers and drainage structures 03/21/2014d.
- All road grades <5% except as noted.



Note: Drawing not to Scale







HG Energy, LLC

5260 Dupont Road Parkersburg, WV 26101 (304) 420-1100 - Office (304) 863-3172 - Fax Check # 2520 \$1 650,00

January 14, 2014

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

RE: Nathan Goff No. 59 (47-033-4064)

Tenmile District, Harrison County

West Virginia

Diane C. White

Dear Mr. McLaughlin:

Enclosed are Forms WW-3A, WW-3B, WW-9, Mylar of plat, reclamation plan, topo map and copies of the certified mailing receipts for a permit to stimulate the above-captioned liquid injection well. Also enclosed is our check in the amount of \$650.00 to cover the associated permit fees.

Very truly yours,

Diane C. White

Enclosures

RECEIVED
Office of Oil and Gas

FEB 2 4 2014

WV Department of Environmental Protection

cc: William & Pam Johnson - Certified

American Mountaineer Energy, Inc. - Certified

Sam Ward - Inspector