

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 Secondary Recovery Well

This permit, API Well Number: 47-10301738, 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: E. LEASURE I-21

Farm Name: KNIGHT, JOHN & BONNIE

API Well Number: 47-10301738

Permit Type: Secondary Recovery Well

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. 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.
- 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		A	august 9, 2	2013	
2) Operator's Well	No.	F	Pphraim L	easur	e No. I-21
3) API Well No.	47	-	103		1738
	State		County		Permit
4) UIC Permit No.		τ	JIC2R0950	DIAP	

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	D:	Liqu	id Injectio	n X		G	as Injection	(not stora	ge)	Wast	e Disposa	i	
6)	LOCATION:		Elevation	n 1439	9'	_		Wate	ershed	Flub	rty Fork			
		Distric	et	Green		- c	ounty	Wetze		Tuna	Quadrangle	Ce	nterpoint 7.	5'
7)	WELL OPER	RATOR:	HG Ene	rgy, LLC		49449	7948	8) DE:	SIGNATE	D AGEN	p. 1	Mike Kirs	ah	
			-	ipont Road	d			-,		2110111	-	5260 Dupo		
			Parkers	burg, WV	26101								rg, WV 2610	01
9)	OIL & GAS I	NSPECT	OR TO B	E NOTIFI	ED:			10) D	RILLING	CONTRA				
		Nam	e Derek E	Iaught							e To Be Determ	ined Upon	Permit Appro	oval
		Addres	s PO Box		Laber 1					Addres				,
			Smithvi	lle, WV 26	6178									
11)	PROPOSED	WELL W	ORK:	Dril	1		D	rill Deeper		Redri	11	Stimulate		
						Old Forn			Perforate	New For			Convert	X
				Other	Physi	cal Chan	ge in W	ell (specify)			_			
12)	Geological tar	rget form	ation		Gorde	on		Depth		3,382	Ft. (Top) to		3,397 Ft	. (Bottom)
13)	Estimated de	pth of cor	mpleted w	ell (or acti	ual dep	th of exis	sting we	11)		3578'	I	Ft.		
14)	Approximate	water str	rata depth	s:	Fresl	1		600'	Ft.		Salt	160	0' Ft	
15)	Approximate	coal sean	n depths:				1250'		Ft.		_			DMH
16)	Is coal being	mined in	the area?				Yes		X	No				8-19-13
17)	Virgin reserve	oir pressı	ire in targ	et formati	on:			60		psig.	Source		Estimated	01113
18)	Estimated res	servoir fra	acture pre	ssure:				1200		psig.	_			
19)	MAXIMUM P	ROPOSE	ED INJEC	TION OP	ERATI	ONS:	Volum	ne per hour	95 bbl/bs	_	Dattom Hala	D	9400	
20)								-		_	Bottom Hole	Pressure	2400) psi
20)	DETAILED II	micals as	needed to	or MATE maintair	MIALS water	quality:	INJECT	ED, INCLU rove oil reco	DING AD verv.	DITIVES	Fresh wa	RECE	ed water, b	actericides
21)	FILTERS (IF	TTTT 2		Cartridge					,023.		Affia		II and G	as
22)	SPECIFICAT	ION FOR	R CATHOI						N CONT	POL	Onic	000		-
		220192		31011101	LOTTE	7111111	OTTILITY	COMMODIC	IN COINT	LOL	-	SEP 2	0 2013	-
23)	CASING AND	TUBING	G PROGR	AM								V = . =		
O V O	ING OD		appar	DIG L MICO			74	LOUGH AN	and the state		CEMENT	/ Depa	rtment	of
	ING OR ING TYPE	Size		FICATION		TT 1		OTAGE IN		*** **	CEMENT I	ILLUP	al Profe	Etion
	luctor	Size	Grade	Weight	New	Used	For I	Orilling	Left in	Well	ORISAORB			
000007	h Water	8 5/8"	LS	20#	X		70	O'	709'		TI The tast		Kinds	
Coal		0 0/0	LO	2011	A		70	0	709	-	Use Existing		Tension Sizes	
	mediate													"
	uction	4 1/2"	J-55	10.5#	X		35	00'	3500)!	Has Frietian		2.375" x 4.5	
Tubir		2 3/8"	J-55	4.6#	X			90'	3290		Use Existing		Depths Set 3190'	
Line	rs							-	0200				Perforations	
		-											The second secon	tom
												-	Top Bot	JUIII
24)	APPLICANTS	OPERA	TING RIG	HTS were	acquii	ed from		Jerry Booth						
	by Deed		Lease	X	Ot	her Cont	ract	I	ated	Novem	ber 18, 2012		of record in	the
	1 Con 1 Co.		Wetzel		County	Clerk's	Office in		ease	Book		Page	882	
										7 - 110 1				/2013

Farm name:

Knight, John & Bonnie

103017385

16-Jun-97 API# 47 -103- 1738

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

Well Operator's Report of Well Work

Operator Well No.: E. Leasure #I-21

LOCATION:	Elevation:	1,439.00		Quad	irangle:	Cent	er Poi	nt		
	District:	Green			ity: W					
	Latitude:	•	et south of		Deg 3		0	Sec.		
	Longitude:	6,775 Fe	eet west of	80	Deg 4	0 Min	0	Sec.		
Company:	PENNZOIL PI		OMPANY		Casing	g Use	ed in	Left	Cen	nent
	P.O. BOX 551				_ &				Fill	
	VIENNA, WV	26105-5519			Tubin	g Dri	lling	in Well	Cu.	Ft.
Agent:	PHILIP S. ON	DRUSEK			Size					
Inspector:	Randal Mick									
Permit Issued:		6/16/97								
Well work Com		6/20/97			0.5/0	.	001	700		
Well work Com	•	7/29/97			8-5/8'	' 70	09'	709'	325	Sacks
Verbal plugging permission gran										
Rotary X	Cable	Rig			4 1/2"	349	9.60'	3499.60'	275	Sacks
Total Depth (fee		3 <i>57</i> 8'			',"		J.	2 133.00	2,3	Ducius
Fresh water dep		NA								
Salt water depth	is (ft)	NA								
Is coal being mi	ned in area (Y/N	<u>n</u> :	N							
Coal Depths (ft)	•	NA —								
OPEN FLOW I	PATA									
Produc	ing formation		Gordon			Pay 2	zone d	lepth (ft)	33	32'
Gas:	Initial open flo	w		CF/d	Oil: In	itial ope				Bbl/d
	Final open flow	, <u> </u>	* M	CF/d	Fi	nal oper			*	Bbl/d
	Time of open	flow between						* Hours		
Static r	ock pressure		*ps	sig (su	ırface p	ressure)		after		Hours
Second	producing form	ation				Pay 2	zone d	lepth (ft)		•
Gas:	Initial open flo					itial ope				Bbl/d
	Final open flow			ICF/d		inal oper	ı flow			Bbl/d
Q.	Time of open	flow between						Hours		TT
	ock pressure					ressure)		after		Hours
NOTE: ON BACK OR STIMULATIN	OF THIS FORM,	PUT THE FOLI	LOWING: 1)	DETAI	LS OF PE	RFORA?	TED IN	ITERVALS FRAC	TURING	
OR STIMULATIN	G, PHYSICAL CH	IANGE, EIC. 2	2) THE WELL	LOG V	VHICH IS	S A SYSI	EMAU	HUMBENANGEDS	.	
GEOLOGICAL RE	CORD OF ALL P	ORMATIONS,	INCLUDING	COAL	ENCOUN	TEKED.	BY IH	SEP 2 0 201		
		Fo	or: PENNZO	OIL PI	RODUC	TS CON	MPAA	WV Departme	ant of	
			By:		4	بإنوا	17-	Vironmental P	rotectio	n
			Date:		/بح ا	17/	5 En	VITOTITIO		
						-			10/25	/2013

Treatment:

Perforated Gordon sand with 36 holes from 3389'-3414' K.B. Fractured with 300 gals 15% HCL and 215 bbis gelied water and 11,000 lbs. 20/40 sand

Well Log:

All depth are relative to K.B. This well was directionally drilled.

0	718 Sand and Shale
718	788 sand
788	1034 Shale
1034	1100 sand
1100	1298 Shale
1298	1460 sand
1460	1784 Shale
1784	1827 sand
1827	1882 Shale
1882	1988 sand
1988	2284 Shale
2284	2324 sand
2324	2492 Shale
2492	2610 Big Lime
2610	2774 Big Injun
2774	3358 Shale
3358	3382 Gordon Stray
3382	3397 Gordon
3397	3578 Shale

Received

SEP 20 2013

Office of Cut and Gas Protection

Office of Cut and Gas Protection

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WW-3A 10/07

5) Surface Owner(s) To Be Served



1) Date:		August 9,	2013	
2) Operator's We	ell No.	Ephraim l	Leasure	No. I-21
3) API Well No.	47	103	0.50	1738
	State	County		Permit
4) UIC Permit N	o.	UIC2R098	501AP	

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

7 (a) Coal Operator

(a) Name	John & Bonnie Knight	Name	NA
Address	1668 Hillside Terrace	Address	
-	Akron, OH 44305		
(b) Name	John & Stanley Pittman	7 (b) Coal Owner	er(s) With Declaration Of Record
Address	P. O. Box 10	Name	NA
	Reader, WV 26167	Address	-
(c) Name		- 1000400	
Address		Name	NA
	*	Address	
-		_	*
6) Inspector	Derek Haught	7(c) Coal Lessee	With Declaration Of Record
Address	PO Box 85		NA
-	Smithville, WV 26178	_	
Telephone	206-7613	<u>-</u>	
TO THE DERS	ON(S) NAMED ABOVE: You should have	received this	form and the following documents:
	ation for a Liquid Injection or Waste Disposal W	ell Work Permi	t on Form WW-3(B), which
	parties involved in the drilling or other work;	******	
7 To 1 To	rveyor's map) showing the well location on For		
	uction and Reclamation Plan on Form WW-9 (un		요즘 생님들이 그리고 하시는 것 같아. 그리고 있다면 하시는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이 없는 것이다.
which sets	out the plan for erosion and sediment control an	d for reclamation	on for the site and access road.
The date propos	ed for the first injection or waste disposal is	NA	
	OU RECEIVED THESE DOCUMENTS IS THAT YOU		S REGARDING THE APPLICATION
Control of the Contro	MMARIZED IN THE "INSTRUCTIONS" ON FORM		
	RED TO TAKE ANY ACTION AT ALL.	THE OCTO PROTOL	WILL TO TOO. HOWEVER TOO
		a 11	to Elean has Eled this Nation and
	ler Chapter 22-6 of the West Virginia Code, the undersigned		
	ompanying documents for a Well Work Permit with the Chic		
WW 6. Copies of this	ection, with respect to a well at the location described on the s Notice, the Application, the plat, and the Construction and	e attached Applicat I Roclamation Plan	have been mailed by registered ound Gas
	vered by hand to the person(s) named above (or by publicat		
mailing or delivery t		ion in cortain orien	
			SEP 202013
	The person signing this document shall make the	following certifica	ation:
			HG Energy, LLC 5260 Powifor Real Protection
"I certify under pena	lty of law that I have personally examined and am	Well Operator	HG Energy, LLC ental Protection 5260 Powifio Road Parkersburg, WV 26101
familiar with the inf	formation submitted in this document and all attachments	Address	
and that, based on n	ny inquiry of those individuals immediately responsible		Parkersburg, WV 26101
for obtaining the infe	ormation, I believe that the information is true, accurate		
	aware that there are significant penalties for submitting	By:	Diane C. White
false information, in	cluding the possibility of fine and imprisonment."	Its:	Accountant
		Signature	Diane C White
Oil and Gas Privacy	Natice	Signature	Diane Curius
The Office of Oil and	l Gas processes your personal information, such as name, ac	ddress and phone n	umber, 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 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, please contact DEP's Chief Privacy Officer at:

depprivacyofficer@wv.gov



U.S. Postal Service TM CERTIFIED MAIL RECEIPT 0 (Domestic Mail Only; No Insurance Coverage Provided) 511 For delivery information visit our website at www.usps.com@ =0 356 \$1,52 0777 Postage 09 \$3,10 Certified Fee 2000 Postmark Return Receipt Fee (Endorsement Required) \$2,55 Here Restricted Delivery Fee (Endorsement Required) \$0.00 20 \$7.17 30 Total Postage & Fees \$ Sent To 7012 Stanley John Street, Apt. No.; or PO Box No. City, State, ZIP+4 Reader, WV 26167

Office of Oil and Gas

SEP 202013

WV Department of Environmental Protection

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	Sturm Environmental Services
Well operator's pr	ivate 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.

RECEIVED
Office of Oil and Gas

SEP 202013

No known Water Supply Sources are located within 2000' of proposed well.

WV Department of Environmental Protection Form WW-9 Rev. 10/94

	Page_	3	of.	3
API	Number 47-	103	-	1738
Operator's Well No.	Ephraim I	easur	e No. I-21	

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		0.	P Code 4944979	18
Watershed	Fluharty I	Fork		Quadrangle	Centerpoint 7.5'	10
Elevation	1439'	County	Wetzel	District	Green	
Description of a	anticipated Pit Waste:	A pit will n	ot be used.	_		
Do you anticipa	te more than 5,000 bbls	of water to comp	lete the proposed well w	ork Yes	No X	
Will a synthetic	liner be used in pit?	No	If so, what mil.?			
Proposed Dispo	sal Method For Treated	Pit Wastes:				DMI
_	Land Applic					8-19
_			Permit Number)
-	Reuse (at Al)
¥-	Off Site Disp	osal (Supply For (Explain	rm WW-9 for disposal loc	ation)		
Drilling medium	n anticipated for this wel		211	271)
	f oilbased, what type? S			NA		
Additives to be		, monetie, petroie				
Drill cuttings di	sposal method? Leave in	pit, landfill, ren	noved offsite, etc.			
- I	f left in pit and plan to so	olidify, what med	ium will be used? Ceme	nt, lime, sawdust		
- I	andfill or offsite name/p	ermit number?				
applicable law or I co this application of for obtaining the penalties for sub	r regulation can lead to e ertify under penalty of la form and all attachments e information, I believe the emitting false information	enforcement action with at I have person the street of and the nat the information, including the properties.	rsonally examined and a t, based on my inquiry o on is true, accurate and o possibility of fine or impr	m familiar with the in f those individuals imr complete. I am aware t isonment.	formation submitted or nediately responsible	
Company Offic		- 05	Diane C W	hite	_	
	ial (Typed Name)	-	Diane C. White			
Company Offic	ial Title	_	Accountant			
Subscribed and	l sworn before me this	12	day of Que	ust 2013	tary Public	
My commission	expires	Nov	12,2013	WEST	OFFICIAL SEAL NOTARY PUBLIC	
Form WW-9				P	STATE OF WEST VIRK TINA L. PETHTEL HG Energy, LLC 5260 Bupont Roal Carkersburg. West Virginia Commission Expires Nov.	GINIA 0/25/201

~ 1	
Legend	
Tesena	
	_

Property Boundary	
Road	
Existing Fence	—x——x——
Planned Fence	—/——/—
Stream	
Open Ditch	>
Rock	<i>9</i> 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
•	
North	N
Builḍings	(PER)
Water Wells	W
Drill Site	⊕ .

Diversion
Spring
Wet Spot
Drain Pipe
Waterway
Cross Drain
Filter Strip
Pit: Cut Walls
Pit: Compacted
Fill Walls
Area of Land
Application
of Pit Waste

Area I (Location) Area II Approx. 0.3 Ac. Prevegetation pH Area II Approx. 0.2 Ac. Lime 2 Tons/Acre or Correct to pH 6.5 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum) Mulch Straw 2 Tons/Acre SEED MIXTURES Area I (Location) Area II (Road)	Jbs/Ac. 40
Area II Approx. 0.2 Ac. Lime 2 Tons/Acre or Correct to pH 6.5 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum) Mulch Straw 2 Tons/Acre SEED MIXTURES Area I (Location) Area II (Road)	
Lime 2 Tons/Acre or Correct to pH 6.5 Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum) Mulch Straw 2 Tons/Acre SEED MEXTURES Area I (Location) Area II (Road)	
Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum) Mulch Straw 2 Tons/Acre SEED MIXTURES Area I (Location) Area II (Road)	
Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum) Mulch Straw 2 Tons/Acre SEED MIXTURES Area I (Location) Area II (Road)	
Mulch Straw 2 Tons/Acre SEED MIXTURES Area I (Location) Area II (Road)	
SEED MIXTURES Area I (Location) Area II (Road)	
Area I (Location) Area II (Road)	
Area I (Location) Area II (Road)	
111 tu 1 (200 tu 0 - 7)	
Seed Type	40
Tall rescue	F
Ladino Clover 5 Ladino Clover 5	
·	



See Page 2 for Relamation Plan From Pt. (A) to County Road

Main

1738

No.I-21

1688

H-22 [⊕]

Reclamation Plan For: Ephraim Leasure No.I-21

47-103-1738

NOTE:

WELL LOCATION WAS BUILT AND RECLAIMED UNDER DRILLING PERMIT NO.47-103-1738. 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. NO WORK-OVER PIT WILL BE REQUIRED FOR PROPOSED WELL WORK.

Theodore Adamerovitch - Surface Owner

RECEIVED
Office of Oil and Gas

SEP 202013

WV Department of Environmental Protection

DMH 8-19-17

Notes:

John S. Knight - Surface Owner

- Requested permit is for workover of existing well.
- Access from County Road to well location is existing. Structures will be maintained.
- 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.

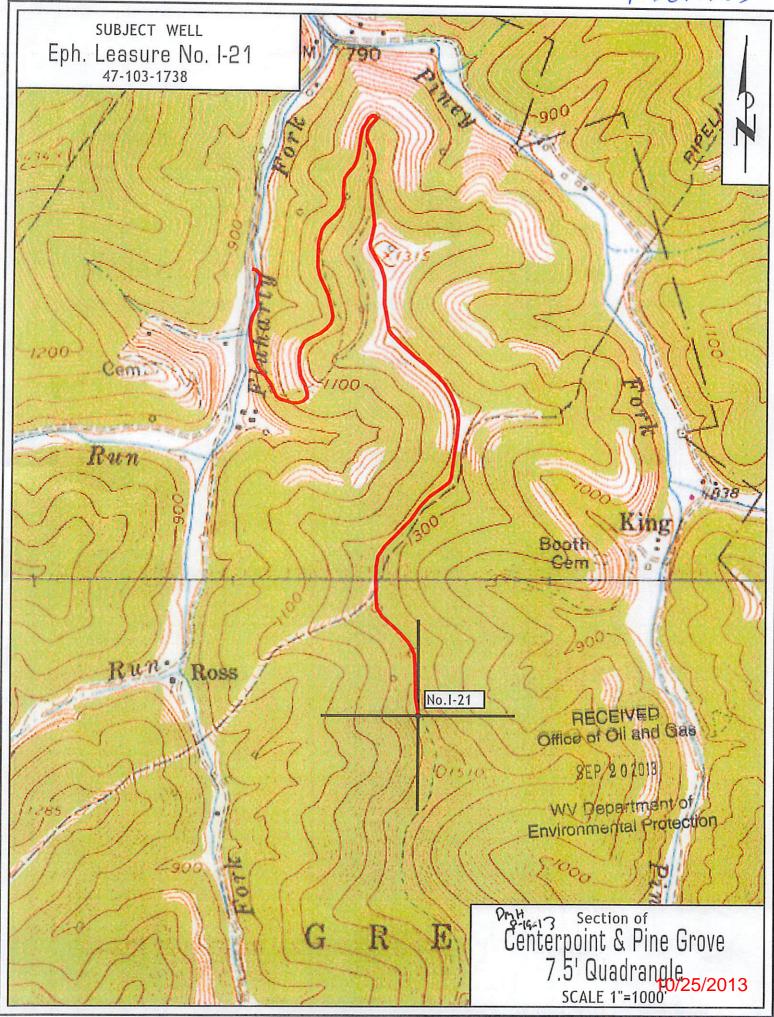
NOTE

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

10/25/2013

Note: Drawing not to Scale

Page 1



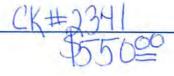
BHL - 80°41'17.2" LATITUDE 39° 30' 00" BHL - 39°29'43.9" **PLAT NOTES** 7.5' TOPO Surface The drawing shown hereon is from the original drilling permit plat dated 6-3-97. BHL Jacob E Wiley This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude. 40.5 Latitude & Longitude shown was measured by DGPS -Sub-Meter Mapping Grade (NAD 1927) 40' 800 \$ 5 ONGITUDE Ross Eph Proposed Fluharty Hrs (2) David Fluharty Hrs 1086 **B** 0 1645 1-20 Irene Reilly ☆1315 13 1085 8 0.5 9 Road CALL TABLE 1877 A N41° 30'W 2584' H-19 B S86° 13'E 3910.5' © 586° 13'E 5307.0" **UTM Coordinates** WELL TIES NAD 1983 (m.) Surface N - 4,371,900 m. E - 526,607 m. N83° 48'E 3753 @ N14° 30'W Bottom N - 4,371,824 m. Hole E - 526,832 m. Fluharty LOCATION REFERENCES Existing Well - DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. FILE NO._ I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE MAP NO. N S INFORMATION REQUIRED BY LAW AND THE REGU-LATIONS ISSUED AND PRESCRIBED BY THE DEPART-MENT OF MINES. MINIMUM DEGREE OF ACCURACY Sub-Meter PROVEN SOURCE OF SSIONAL SUP ELEVATION _ DGPS Survey (SIGNED) (Sub-Meter Mapping Grade) P. ROUSH TIMOTHY PS 793 August 7, 2013 WEST VIRGINIA DATE_ Eph. Leasure No. 1-21 Division of Environmental Protection FARM_ Office of Oil and Gas API WELL NO. 601 57th Street Charleston, West Virginia 25304 LIQUID INJECTION X WASTE DISPOSAL WELL TYPE: OIL _ _GAS_ (IF "GAS") PRODUCTION ___ STORAGE__ DEEP__ SHALLOW_ LOCATION: ELEVATION __ 1,439 _ WATERSHED__ Fluharty Fork DISTRICT Green _ COUNTY_ QUADRANGLE Centerpoint 7.5 ACREAGE _ 65 Ac. SURFACE OWNER _____ John Knight et al OIL & GAS ROYALTY OWNER HG Energy LLC et al LEASE ACREAGE 101 Ac. 10/25/2013 LEASE NO. _ Fee 2837-00 CONVERT __ DRILL DEEPER __ REDRILL _ PROPOSED WORK: DRILL _ FRACTURE OR STIMULATE __ PLUG OFF OLD FORMATION __ PERFORATE NEW Convert To Liquid Injection FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG_ TARGET FORMATION _ Gordon ___ ESTIMATED DEPTH_ WELL OPERATOR HG Energy, LLC DESIGNATED AGENT Mike Kirsch 5260 Dupont Road Parkersburg, WV 26101 5260 Dupont Road ADDRESS

Parkersburg, WV 26101



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

August 9, 2013



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

RE:

Ephraim Leasure No. I-21 (API 47-103-1738)

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 convert the above-captioned shallow, producing well to an injection well. Our check in the amount of \$550 is attached.

If you have any questions regarding this application, please call me at 304-420-1119.

Very truly yours,

Diane C White

Diane C. White

RECEIVED
Office of Oil and Gas

SEP 202013

Enclosures

cc:

John & Bonnie Knight – Certified John & Stanley Pittman – Certified

Derek Haught - Inspector

WV Department of Environmental Protection