

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: 47-10301315, 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: IRENE REILLY 13

Farm Name: WV PUBLIC LAND CORP.

API Well Number: 47-10301315

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 permit conditions may result in enforcement action.</u>

CONDITIONS

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring 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	July 25, 2013					
2) Operator's Well	No.	I	13			
3) API Well No.	47	-	103	•	1315	
	State		County		Permit	
4) UIC Permit No.		U	IIC2R0950)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 TYPI	E:	Liquid	Injection	X		Gas Injection	n (not stor	rage)	Waste I	Disposal		
6) LOCATION	;	Elevation	1005'			Wa	tershed	Fluhart	ty Fork of Pine	y Fork		
	District		Green		Cour	nty Wetz	el		Quadrangle	Cen	terpoint 7.5'	
7) WELL OPE	RATOR:	HG Ener	gy, LLC		4944979	48 8) DI	ESIGNAT	ED AGENT:	Mi	ke Kirscl	n	
, , , , , , , , , , , , , , , , , , , ,			ont Road		1020) (03.740)				520	30 Dupor	nt Road	
		Parkersb	urg, WV 2	6101		_			Pa	rkersbur	g, WV 26101	
9) OIL & GAS	INSPECTO	OR TO BE	NOTIFIE	D:		10) I	RILLING	G CONTRAC	TOR:			
		Derek Ha					Name To Be Determined Upon Permit A					
	Address	PO Box 8						Address				
		Smithvill	le, WV 261	178		_						_
11) PROPOSED	WELL W	ORK:	Drill			Drill Deepe		Redrill		imulate	X	
				0	ld Formati			te New Form	ation		Convert	
			Other	Physica	al Change	in Well (specify)				7 797 (4) 7:	
2) Geological t	arget form	ation		Gordo	n	Dept	h	2,881	Ft. (Top) to		2,990 Ft. (Bot	om
3) Estimated d	lepth of cor	npleted we	ell (or actu	al dept	h of existin	ng well)		2990'	Ft.			
(4) Approximat	e water str	ata depths	3:	Fresh		65	Ft.		Salt	1,09	2 Ft.	-
5) Approximat	e coal sean	n depths:			7	70	Ft.					
6) Is coal being	g mined in	the area?			Ye	s	X	No No				
7) Virgin reser	voir pressu	ire in targ	et formati	on:		60		psig.	Source		Estimated	
8) Estimated r	eservoir fr	acture pre	ssure:			1200		psig.				
9) MAXIMUM	PROPOSE	ED INJEC	TION OPE	ERATIC	ONS: Y	Volume per hou	r 25 bbl	/hr	Bottom Hole I	ressure	2400 psi	
	0.0100.000					JECTED, INCI	-				10. 00. Miles	,
						d improve oil re		ADDITIVES	Fresh wate	r, produc	ced water, bacter	cia
21) FILTERS (I				SECTION .		al bed filters	•					
		CATHOL				THER CORROS	ION CON	ATTPOT.				
22) SPECIFICA	TION FOI	CATHOL	IC PROT	ECHO	IN AND O	HER CORROS	NON COL	VIROL				
(3) CASING AN	ND TUBIN	G PROGR	AM									
		appar	oro i mroji	10		TOOMA OF T	NUDDALA	1.0	CEMENT FI	T T T T T T T T T T T T T T T T T T T	PACKERS	
CASING OR	Cina	Grade	FICATION Weight	New	Used	FOOTAGE I For Drilling	_	in Well	OR SACKS (Sept. Sept. Co.	FACKERS	
CONDUCTOR CONTROL CONT	Size	Grade	weight	ivew	Usea	For Drining	Lett	in wen	OR BACKS (50.11.)	Kinds	_
resh Water	8 5/8"	H-40	24#	X		893'	8	393'	Use Existing C	asing	Tension	_
Coal	0.070	11-10	2411								Sizes	
ntermediate											23/8" 14/2"	
Production	4 1/2"	K-55	9.5#	X		2976'	2	2976'	Use Existing C	asing	Depths Set	
'ubing	23/8"		4.6#	X		2780	2	780'			26801	
iners			-			-1.					Perforations	
		-									Top Bottom	
										- P	ECEIVED	
										1 1		0
24) APPLICAN	TS OPERA	TING RIC				-	eilly et al			лпсе	of Oil and	U
by Dee	d	Lease	X	-	ther Contr	-	_Dated_		nber 12, 1898		of record in the	
		Wetzel		Count	y Clerk's C	Office in	Lease	Book	47 at	Page S	P1983 2013	

Farm name: WVA. PUBLIC LAND

Operator Well No.: IRENE REILLY#13

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

Well Operator's Report of Well Work

LOCATION:	Elevation: 1,00)5.00 Quad	drangle: C	ENTER POINT	••	
	District: GREI Latitude: 2740 Longitude 8340) Feet Sou	th of 39	ounty: WETZ Deg. 30Min Deg. 40 Mi	. O Sec.	•
Company: PEN	NZOIL PRODUCTS (BOX 5519	COMPANY				
	NNA, WV 26105-5	519	4	Used in	ĺ	Cement Fill Up
Agent: JAM	ES A. CREWS	٠.	Tubing	Drilling	in Well	Cu. F.t.
Inspector:	PANDAL MICE		Size	ļ ·	!	!
Permit Issue	ed: 12/1	4/94		<u> </u>]
Well work Co	<u> </u>	03/95			 !	
Verbal Pluge	ging	03/95	8-5/8"	893 ^t	8931	Existing
Permission of	ranted on: -	~			 ,	Casing
Total Depth	Cable X Ri (feet)	2990 '	4-1/2"	2976 ^t	29761	Existing
Fresh water	depths (ft)	NA				Casing
Salt water o	lepths (ft)	NA				
Is coal bein	ng mined in area	(Y/N)? N				
Coal Depths	(ft):					
Produci Gas: In Fi Ti	ng formation itial open flow nal open flow	Gordon * MCF * MCF between in	/d Oil: In /d Fi	Pay zone d itial open nal open fl final test	lepth (ft) flow * .ow *	2881-2990 Bbl/d Bbl/d Hours
Static	rock Pressure	psi	g (surface	pressure)	after *	Hours
Second	producing forma	tion		Pay zone d	lepth (ft)	
Gas: In	itial open flow nal open flow	MCF,	d Oil: In	itial open	flow	Bb1/d
· Ti	me of open flow	between in	nitial and	nal open fl final test	·s	Bbl/d Hours
Static	rock Pressure	psi	g (surface	pressure)	after	Hours
INTERVALS, F LOG WHICH I	K OF THIS FORM RACTURING OR S' S A SYSTEMATIC AL ENCOUNTERED I	FIMULATING, DETAILED	, PHYSICA GEOLOGICA	L CHANGE, L RECORD O	ETC. 2). F ALL FOR	THE WELL
				055	RECEIVE	
	For	: PENNZOII	PRODU <i>O</i> NS	COMPANY	ce of Oil an	d Gas —
		By:	incelly (7/2/95	SEP 23 201	3
				M.	V Departme	nt of
				Enviro	nmental 🕪	otection

Treatment:

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Sandonotched - 2888'-2892' Treated via 4½" csg. w/300 gals. 15% HCl acid, 217 bbls. of gelled water & 73,700—1bs. of 20/40 sand

Well Log: 13,700

See original well record

Received and see Protection

Why Dept. of Environmental Protection

SEP 2.3 2013

SEP 2.3 2013

SEP 2.3 2013

WW-3A 10/07

5) Surface Owner(s) To Be Served

(a) Name



WV Public Lands Corporation

1) Date:		July 25, 20	013	
2) Operator's We	ll No.	Irene Reil	ly No. 1	13
3) API Well No.	47	103	*	1315
	State	County		Permit
4) UIC Permit N	o.	UIC2R095	01AP	

NA

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

Name

A	ddress	1900 Kanawha Blvd. East	Address	-
	_	Charleston, WV 25305		
(b)	Name	Dept of Natural Resources - Gary Foster	7 (b) Coal Owner(s	s) With Declaration Of Record
A	ddress	1304 Goose Run Road	Name	NA
	_	Fairmont, WV 26554	Address	
(c)	Name	John S. Knight		
	ddress	1668 Hillside Terrace	Name	NA
	_	Akron, OH 44305	Address	
6) Ins	spector	Derek Haught	7(c) Coal Lessee W	Vith Declaration Of Record
	ddress	PO Box 85	T(c) Star Debbee T	NA
**		Smithville, WV 26178	_	1111
Tolo	phone	206-7613	-	
Tele	phone_	200-7013		
THE REAS WHICH AI RE NOT ake notice pplication a nvironmen W-6. Copic	SON YO' RE SUM REQUII that under and accordital Protects es of this il or deliv	ed for the first injection or waste disposal is U RECEIVED THESE DOCUMENTS IS THAT YOU IMARIZED IN THE "INSTRUCTIONS" ON FORM VRED TO TAKE ANY ACTION AT ALL. er Chapter 22-6 of the West Virginia Code, the undersigned impanying documents for a Well Work Permit with the Chiection, with respect to a well at the location described on the Notice, the Application, the plat, and the Construction and vered by hand to the person(s) named above (or by publication the Chief.	WW-3(A) DESIGNA I well operator propose of of the Office of Oil as e attached Application I Reclamation Plan ha	es to file or has filed this Notice and and Gas, West Virginia Department of and depicted on the attached Form we been mailed by registered or
		The person signing this document shall make the	following certification	on:
certify und	der penal	ty of law that I have personally examined and am	Well Operator	HG Energy, LLC
	The second second	ormation submitted in this document and all attachments	Address	5260 Dupont Road
nd that, bas	sed on my	y inquiry of those individuals immediately responsible		Parkersburg, WV 26101
r obtaining	the info	rmation, I believe that the information is true, accurate		
		ware that there are significant penalties for submitting	By:	Diane C. White
lse informa	ation, inc	luding the possibility of fine and imprisonment."	Its:	Accountant HECEIVE.
				Office of Oil and G
			Cianatuus	2: 0116.7
il and Gas	Privacy N	Votice	Signature	mane fightle
2 11 12				JE. 202013
our person	al inform	Gas processes your personal information, such as name, ad ation may be disclosed to other State agencies or third part ments, including Freedom of Information Act requests, Our	ties in the course of bu	siness 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:

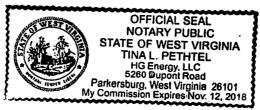
Forn	1	W	W	7-9
Rev.	1	LO/	94	1

• •	Page	. 3	. of .	3 . ··
A	PI Number 47-	103	•	1315
Operator's Well No.	Irene	Reilly 1	No. 13	

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 Energy	, LLC	o	P Code	494497948	
Watershed Fluharty F	ork of Piney fork	Quadrangle	Center	point 7.5'	-
Elevation 1005'	County Wetzel	 District		reen	_
Description of anticipated Pit Waste:	Fluids encountered in stimulating ex	isting well.			-
Do you anticipate more than 5,000 bbls	of water to complete the proposed well wor	Yes .	No	X	_
Will a synthetic liner be used in pit?	Yes If so, what mil.?	20 Mil.			
Proposed Disposal Method For Treated 1	Pit Wastes:	-			
XLand Applica	ation	•			
Underground	d Injection (UIC Permit Number)
Reuse (at AP	PI Number)
Off Site Disp	osal (Supply Form WW-9 for disposal loca	tion)			-
Other	(Explain				<u>)</u>
Drilling medium anticipated for this well	l? Air, fresh water, oil based, etc.	NA			
- If oilbased, what type? Sy					- DWA"
Additives to be used? Water, soap	o, KCI				8-12-13
Drill cuttings disposal method? Leave in					_
	olidify, what medium will be used? Cemen	t, lime, sawdust <u>N</u>	lative soil,	cement, lime	_
- Landfill or offsite name/pe	ermit number?				_
issued on August 1, 2005, by the Office of that the provisions of the permit are enfo applicable law or regulation can lead to e I certify under penalty of la this application form and all attachments for obtaining the information, I believe the	and agree to the terms and conditions of the foll and Gas of the West Virginia Department of the Conforcement action. In that I have personally examined and an active the information is true, accurate and conforcement active in the information is true, accurate and conformation in the conformation of the conformation is true. Diane C. White Accountant	ment of Environment condition of the gene in familiar with the i those individuals in complete. I am aware	tal Protection ral permit of the results of the res	on. I understand and/or other submitted on responsible	- - -
Subscribed and sworn before me this My commission expires	25 day of July Ima of Duly Nov. 12, 2018	2013 N	lotary Pub	RECEIN	₌ /ED and Gas
Form WW-9				SEP 232	013



WV Department of Environmental Protection 10/25/2013

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TOPOL	

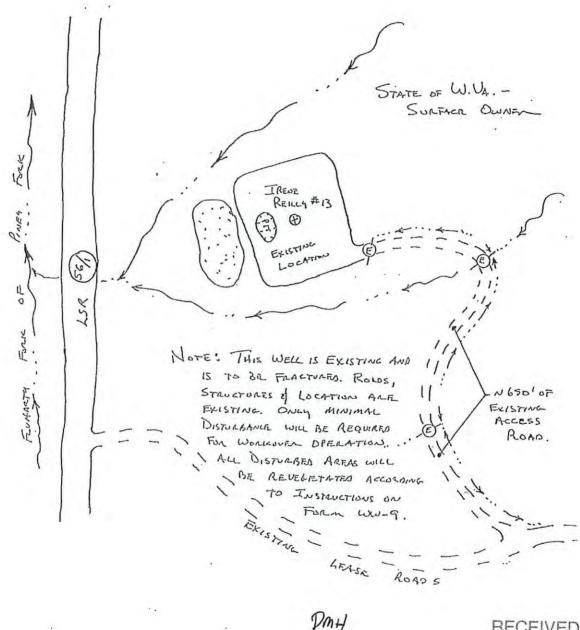
_		,	
Property Boundary	A	Diversion	11/1/1/1/1/
Road		Spring	
Existing Fence	xx	Wet Spot	ひ
. Planned Fence	—/——/—·	Drain Pipe	
Stream .		Waterway	
Open Ditch	>>	Cross Drain	
Rock	30000000000000000000000000000000000000	Filter Strip	XXXXXXXXX
•	, bea	Pit: Cut Walls	
North	N		
Buildings		Pit: Compacted Fill Walls	
Water Wells	(W)	Area of Land	
Drill Site	\oplus	Application of Pit Waste	
		ا.	
-	Area	I	
Proposed Revegetation Treatme	ent: Acres Disturbed Approx.	0.3 Ac. Pre	evegetation pH
	Area		
	Approx.	0.2 Ac.	
Lime	2 Tons/Acre or Con	rect to pH 6.5	
	er (10-20-20 or Equivalent) 500		bs. Minimum)
Mulch	Straw 2 Tons/Acre	•	
	SEED MIX	TURES	
Area '	I (Location)	•	Area II (Road)
Seed Type	Lbs/Ac.	Seed Type	Lbs/Ac.
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	
			100
64 to	·		celly
			Dec
Attach:			2 3013
	t and proposed area for land application		· 52
Photocopied section of involved	17.5 topographic sneet.		Received SEP 2 3 2013 SEP 2 3 2013
Plan approved by:	·/ ·		Office of Cit and Gas Protection Office of Cit and Gas Protection
Comments:			M Debr. U.
Oominons, The state of the stat	· · · · · · · · · · · · · · · · · · ·		<u> </u>
Title: 0:1	+ Gas Townets		Date: 8-13-1-
e i de la come de la come	+ Gss Inspector	·	
Field Reviewed?	(/ Yes	())]	No

Reclamation Plan For:

Irene Reilly No. 13

47-103-1315





8-12-13

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

Notes:

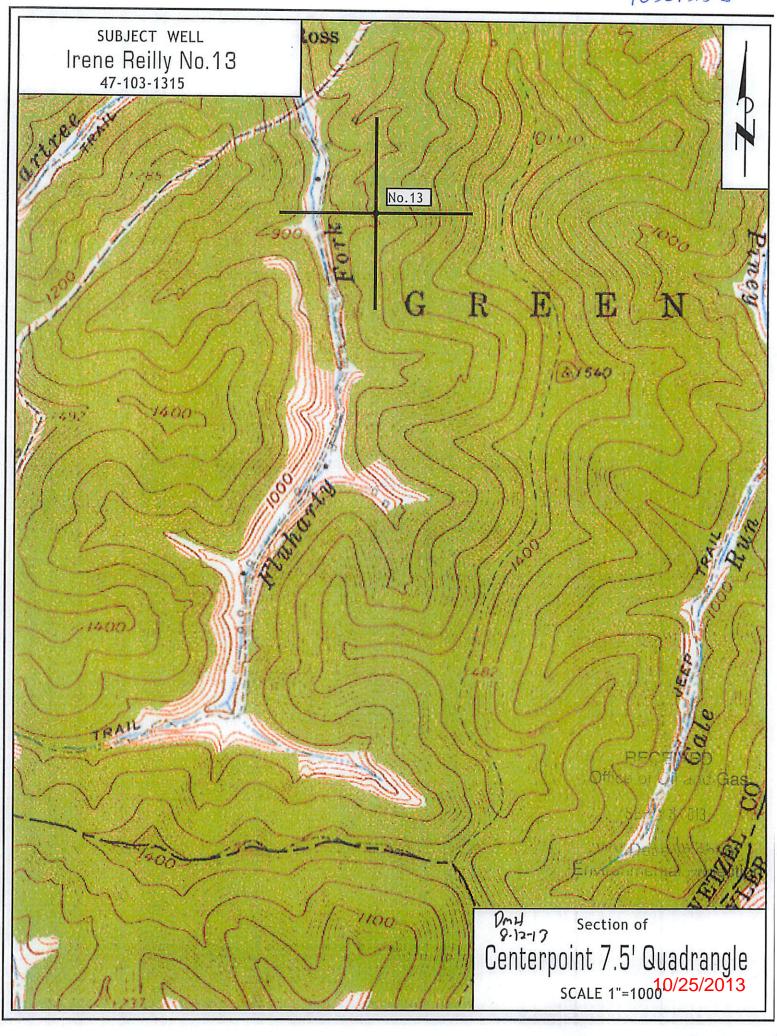
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.
- Location of work-over pit may be changed based on as-built considerations.

RECEIVED
Office of Oil and Gas

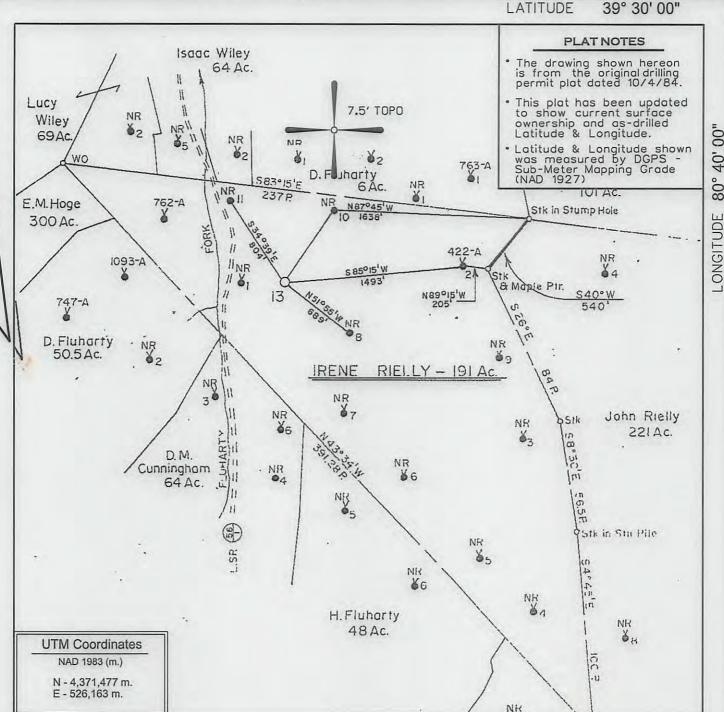
SEP 23 2013

REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
WELD MANUAL MARCHING EROSION AND
SEDIMENT FROM SOIL DISTURBING
OPERATIONS.

Note: Drawing 964562813



2,760'



- DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

603 FILE NO. MAP NO. N57 N3.4s SCALE 1" = 800 w4.5MINIMUM DEGREE OF 1 in 200 ACCURACY __ PROVEN SOURCE OF ELEVATION Triangulation Station

on Middle Ridge. Elev - 1540'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGU-LATIONS ISSUED PRESCRIBED BY THE DEPART

MENT OF MINES (SIGNED) TIMOTHY P. ROUSH

PROS/ONAL SURGE

No. 793

WEST VIRGINIA

Division of Environmental Protection Office of Oil and Gas 601 57th Street Charleston, West Virginia 25304

PROPOSED WORK: DRILL.



July 22, 2013 DATE_ Irene Reilly *13 FARM_

API WELL NO.

PS 793

47 - 10301315 RS

WELL TYPE: OIL _ LIQUID INJECTION X WASTE DISPOSAL _ GAS _ (IF "GAS") PRODUCTION ____ STORAGE_ _ DEEP___ SHALLOW LOCATION: ELEVATION _____1,005' Fluharty Fork of Piney fork __ WATERSHED__ Wetzel Green DISTRICT___ _ COUNTY_ QUADRANGLE Centerpoint 7.5' W.Va. DNR. ACREAGE __ 191 Ac. SURFACE OWNER__ OIL & GAS ROYALTY OWNER Thom. F. Newman (1/2 Int) 191 Ac. _ LEASE ACREAGE_ 10/25/2013 15634-50 LEASE NO. _

DRILL DEEPER_ REDRILL_ CONVERT_ STIMULATE X PLUG OFF OLD FORMATION __ PERFORATE NEW

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 **ADDRESS**

ADDRESS 5260 Dupont Road Parkersburg, WV 26101

5260 Dupont Road Parkersburg, WV 26101



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



July 25, 2013

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

RE:

Irene Reilly No. 13 (47-103-1315) Green District, Wetzel County

West Virginia

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

ce: WV Public Lands Corporation - Certified

Department of Natural Resources - Certified

John S. Knight - Certified Derek Haught - Inspector RECEIVE Office of Oil and take

SEP 23 2013

WV Department of Environmental Frutection