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Source of Elevation	FORKS ROAD SHOWY 788.00
I Afe a read eventure of	hereby certify that this map is correct to the best of my know-
Fracture	d shows all the information required by paragraph 6 of the rules the oil and gas section of the mining laws of West Virginia.
New Location	
Drill Deeper	Signed: Z. B-y-E Squares: N S E W
Abandonment	
Company JOSY JAY ENTERPRISES	STATE OF WEST VIRGINIA
Address SPENCER. W.VA.	OIL AND GAS DIVISION
Farm EDNAH J. KN/GHT	CHARLESTON
Tract Acres (2-5) Lease No.	WELL LOCATION MAP
Well (Farm) No Serial No.	
Elevation (Spirit Level) 9/1/29	FILE NO. KAN-2176
Quadrangle CHARLESTON NW	+ Denotes location of well on United States
County KANAWHA District ZANAA	Topographic Maps, scale 1 to 62,500, latitude
Engineer L. F. By <	and longitude lines being represented by border lines as shown.
Engineer's Registration No. 804	and to the same of
File No Drawing No	Denotes one inch spaces on border line of original tracing.
Date 3 - 27 - 67 Scale 1" - 4 00'	and the second s

---- OCT 1 0 1967

6-6312 Weep Well (Newburg)



# DEPARTMENT OF MINES

OIL AND GAS DIVISION

Rotary	X
Spudder	
Cable Tools	
Storage	

Quadrangle Charleston

Permit No. Ka	n - 2176		WELL	RECORD		Oil or	Gas Well Gas
The state of the s	•	The state of the s	1-	Casing and Tubing	Used in Drilling	Left in Well	Packers
			Acres 25	Size			
		.393.8-3		16		***************************************	Kind of Packer
			Elev. 911.296	L 13.3/8	83	83	
		CountyKar					Size of
		-		81/5/8	2009	2009	
				65%			Depth set
Mineral rights are	owned by	Same		5 3/16, 5	5729	57-29	
				41/2			
					<u> </u>		1 2
			Го				
				A			Perf. bottom
Open Flow			Inch		cementing record		
			Inch Cu. Ft.	the state of the s			No. FtD
	v .	4.1	Cu. Pt.				below -
			bbls., 1st 24 hrs.				FEET INCH
							FEET INCH
							FEET INCH
WELL FRACTU							Control of the State of the Control of the State of the S
Formation	Color	Hard or Soft	Тор	Bottom	Oll, Gas or Water	Dept	h Remarks
	Rec	ord lost	on upper pa	rt of hole			
Shale		2397					
Ferea	2397	2412			Carina		
Shale	2412	1933	Show go		Casing d		
					13 3/8"		85 bags
Corniferou		5033			8 5/8"	2009* 1	175 bags:
Oriskany	5033	5064			52"	57200 1	50 bags
Lime	5064	5072					
Sand	5072	5090 -					
Lime & Dol	omite 505	0 5781					
Newburg	5781		5782 - 85				
	Te	tal Depth	5794		in the second	Wei 2233	
					100 000	d 1968 CEIVED	
						A Mircullia	(N. 52)
					681	of Mines	

### State of West Virginia Division of Oil and Gas

Permitting Well Ope Permitting Well Ope OWame: Harper, Ronald H. permitting Well Operator's Report of Well Work Operator Well No. E. Knight 1 - 9665 LOCATION: Elevation: 911.29 Quadrangle: Pocatalico County: Kanawha District: Union Latitude: 4730 Feet South of 38 Deg. 27 Min. 30 Sec. Longitude: 1780 Feet West of 81 Deg. 40 Min. 0 Sec. Company: Left Viking Energy Corporation Casing | Used in Cement Fill up P.O. Box 13366 in Sissonville, WV 25360 Agent: Michael Pinkerton Well Tubing Drilling Cu.Ft. Inspector: <u>Carlos W. Hively</u> Permit Issued: <u>08-28-92</u> Size Well work Commenced: 10-06-92 5 1/2" \*42381 \*104 cf Well work Completed: 10-16-92 2 3/8" <u> 3962 '</u> Verbal Plugging\_ Permission granted on: Rotary\_\_\_\_Cable\_\_\_ Total Depth (feet)\_ Fresh water depths (ft) 200, 280, 3501 Salt water depths (ft)\_ 1215 to 1360 Is coal being mined in area (Y/N)? N Coal Depths (ft):\_\_\_\_ OPEN FLOW DATA \*See back of record Producing formation Brown Shale Pay zone depth (ft) \*

Gas: Initial open flow 169 MCF/D Oil:Initial open flow 0 Bbl/d Final open flow 149 MCF/D Final open flow 0 Bbl/d Time of open flow between initial and final tests 24 Hours 720 psig (surface pressure)after 24 Hours Static rock Pressure\_\_ Second producing formation\_\_\_\_\_Pay zone depth (ft)\_\_\_\_\_\_\_\_Bas: Initial open flow\_\_\_\_\_\_Bbl/d Final open flow\_\_\_\_\_Bbl/d Time of open flow between initial and final tests\_ Static rock Pressure \_\_\_\_\_psig (surface pressure)after\_\_\_\_ 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:	<u>vikin</u>	g viner	gy cor	pora	LION		
BY:	10	90	suas	124	2 Le	Consultant	
DATE:	12-3	1-92					

Reviewed TM 6 Recorded\_

## Partial Plugging Data:

Ran 250' cement plug (150' of Class A, and 100' of Latex) from TD (5794') to 5544'  $\,$ 

#### Squeeze Cement Data:

5 1/2" Casing perforated and squeeze cemented attaining 104 cf fill-up to 3675'. Total Depth inside 5 1/2" at 4238'.

## Recompletion Data:

Devonian "Brown" Shale 3960-4090' 15 holes 75 quality foam frac, 25,000 lbs 20/40 sand

See original record for additional formation information and flow data.

0F 535

FORM	WW-2B		-nvironmental Pi		m on week	VIRGINIA		Pageof
«» <sup>9</sup>	DIV	/ISI	ON OF E	WYRONMEN	TAL PROTE	CTION, OFFI	CE OF OIL	AND GAS
		0	Permitting	n e		APPLICATION	_ \ \	39 2176 Frac.
1)	Well C	per	ate of the	VGasing En	ergy, Inc.	58440	(9)	
	Operat	or'				1 9665		Elevation: 911.2
22250	Well t	:ype	: (a) (	Dil/	or Gas	s <u>X</u> /	Issu	ed 07/18/96 es 07/18/98
N			(b) I	If Gas:	Production Deep	n <u>X</u> / Underg p <u>/</u> /	round Stor	rage/
)	Propos	ed :	Target P	ormation?	(s): Bere	ea Sand		
)	Propos	ed !	rotal De	epth: 241	2	feet		
7)	Approx	ima	te fresh	water s	trata dep	ths: 200,2	80,350	
8)	Approx	ima	te salt	water de	pths:	1215	to 1360	THE THE WORK IN SIGNATURE AND A COMMON TO A STREET AND A S
9)	Approx	ima	te coal	seam dep	ths:	· NA		
10)	Does 1	and.	contair	n coal se	ams tribu	tary to act	ive mine?	Yes/ No_X_/
11)	Propos	ed 1	Well Wo	rk: Per	forate and	d Fracture	Berea Sand	
12)				~ ~ ~ ~ ~ ~			a	
						ING PROGRAM		
12)		i Mikalad Kilo anung mujukka	SI	<u>CASIN</u> PECIFICAT	IONS		INTERVALS	CEMENT
			Size			FOOTAGE I	NTERVALS	n Fill-up
TYPE	ıctor		Size	PECIFICAT	IONS Weight	FOOTAGE I	INTERVALS Left in	n Fill-up (cu. ft.)
Condu			<b>Size</b> 13 3/8	PECIFICAT	IONS Weight	FOOTAGE I	Left in well	n Fill-up
Condu	ictor n Water		Size	PECIFICAT	IONS Weight	FOOTAGE I For drilling	Left in well	Fill-up (cu. ft.)
Condu Fresh	n Water		Size  13 3/8 8 5/8	PECIFICAT	IONS Weight	FOOTAGE I For drilling	Left in well	Fill-up (cu. ft.)
Condu Fresh Coal	n Water		<b>Size</b> 13 3/8	PECIFICAT	IONS Weight	For drilling 83'	Left in well 83'	Fill-up (cu. ft.) 85 bags 175 bags
Condu Fresh Coal Inter	mediat		Size  13 3/8 8 5/8	PECIFICAT	IONS Weight	FOOTAGE I For drilling 83' 2009'	Left in well 83'	Fill-up (cu. ft.) 85 bags 175 bags
Condu Fresh Coal Inter Produ	n Water mediat		Size  13 3/8 8 5/8	PECIFICAT	IONS Weight	FOOTAGE I For drilling 83' 2009'	Left in well 83'	Fill-up (cu. ft.) 85 bags 175 bags
Condu Fresh Coal Inter Produ Tubir	mediat	e	Size  13 3/8 8 5/8	PECIFICAT	IONS Weight	FOOTAGE I For drilling 83' 2009'	Left in well 83'	Fill-up (cu. ft.) 85 bags 175 bags
Condu Fresh Coal Inter Produ	mediated in the second section in the second	ind sizes	Size  13 3/8 8 5/8 5 1/2  Selli	PECIFICAT	IONS Weight	FOOTAGE I For drilling 83' 2009'	Left in well 83' 2009'	Fill-up (cu. ft.) 85 bags 175 bags
Condu Fresh Coal Inter Produ Tubir	mediated in the second section in the second	ind sizes	Size  13 3/8 8 5/8 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2 5 1/2	Grade  Grade  Ovary	Weight per ft.	FOOTAGE I  For drilling  83'  2009'	Left in well  83' 2009'  5729'	Fill-up (cu. ft.) 85 bags 175 bags
Condu Fresh Coal Inter Produ Tubir	mediated iction	ind sizes	Size  13 3/8  8 5/8  5 1/2  Silly  Sign  S	Grade  Or Office	Weight per ft.  Hug S	For drilling  83'  2009'  5729'	Left in well  83' 2009'  5729'	Fill-up (cu. ft.)  85 bags  175 bags  150 bags  Const to onsept.  4000'  Many College  Third College  Thire College  Third College  Third College  Third College  Third Col
Condu Fresh Coal Inter Produ Tubir	mediated in water in	ind sizes	Size  13 3/8  8 5/8  5 1/2  5 1/2  5 1/2  5 1/2  Fid: F	Grade  Or Office	Weight per ft.  Mug Mark Permit	FOOTAGE I  For drilling  83'  2009'  5729'  and Gas Use	Left in well  83' 2009'  5729'	Fill-up (cu. ft.)  85 bags  175 bags  150 bags  Count to accept.  4000'  MARK Character  Fund   WPCP
Condu Fresh Coal Inter Produ Tubir	mediated iction	ind sizes	Size  13 3/8  8 5/8  5 1/2  Silly  Sign  S	Grade  Or Office	Weight per ft.  Weight per ft.	For drilling  83'  2009'  5729'	Left in well  83' 2009'  5729'	Fill-up (cu. ft.)  85 bags  175 bags  150 bags  Const to onsept.  4000'  Many College  Third College  Thire College  Third College  Third College  Third College  Third Col

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Page	1 of	Environmental Protection	1)	Date: <u>May 20</u> Operator's we	1095	· "
Form	WW2-A	Protection	2)	Operator's we	ell number	
	)	74 0 2				
File	Copy	102 0 2 1996	3)	E Knight API Well No:	47 - 029	2176-F
	- 1,- 2	Office of Our			State County	Permit
		Office of Oil & Wast v STATE OF Wast v DIVISION O				
		STATE OF COST V	IRGINIA -	BUREAU OF ENV	IRONMENT	
		DIVISION O	F ENVIRON	MENTAL PROTECT	ION	
		OF	FICE OF OI	L AND GAS		
						·
		NOTICE AND APP	LICATION F	OR A WELL WORK	K PERMIT	
		NOTICE AND AFF		OAV 21 WILLIAM WORK		
4 \	Currence Or	wner(s) to be so	orved:	5) (a) Coal (	merator.	
4)						
		Ronald H. Harpe		Name Address		
		508Guthrie Rd		Address		
		Charleston, WV.	25312	(h) 0-01 0-m	om(a) with Do	- Claration
	(b) Name				er(s) with De	
	Address _			Name Gilford	T. Knight	
					Derricks Cree	
	(c) Name		<u></u>		nville, WV. 2	
	Address _			Name Walla	ce E. Knight	
				Address 819 1	6th Street	
				Ashla	nd, Ky. 41101	
6)	Inspector	Carlos Hively		(c) Coal Les	see with Decl	.aration
	Address _	223 Pinch Ridge	e Road .	Name		
		Elk View, WV.		Address		
	Telephone	(304) - 965-606	9 ·			
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X 8(d)	Included of the Co	hich I hold the is the informat de of West Virg that as requir copies of this	ion requir inia (see red under	red by Chapter page 2) Chapter 22 of	22, Article the West Vir	cginia Code
l na	mpanying d	ocuments pages	1 through	on the ab	ove named par	rties, by:
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	Publ	ication (Notice	or Publi	cation attache	:a)	
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fami	liar with	the information	n submitt	ed on this ap	plication fo	rm and all
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2/	Moule 1.	11/2: 1		OFFICIAL SEAL	NI O	tary Public
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MA C	commission	expires	M. M	ARKT. WINE		
1		3	100 CH	arcrest Drive Rickey, WV 25271 lission Expires February 6, 2001		
				10201 Chee 14003 6' 5001		

16-Jul-96 API # 47- 39-02176 F

State of West Virginia May 1337 Division of Environmental Protection Section of Oil and Gas

Permitting Cilco of Oil & Gas Well Operator's Report of Well Work

Farm name: HARPER, RONALD H.

Operator Well No.: E. KNIGHT #1

LOCATION:

Elevation: 911.29 Quadrangle: POCATALICO

District: UNION

County: KANAWHA

Latitude: 4730 Feet South of 38 Deg. 27Min. 30 Sec. Longitude 1780 Feet West of 81 Deg. 40 Min. 0 Sec.

company:	: ATKTM	J ENERG:	K CO	RPORATION
	P. O.	BOX 133	366	
	SISSON	WILLE.	WV	25360-00

00

Agent: MICHAEL PINKERTON

Inspector: CARLOS HIVELY

07/18/96 09/25/96 Permit Issued: Well work Commenced: 10/16/96 Well work Completed:

Verbal Plugging

Permission granted on:\_\_\_

Rotary Cable Total Depth (feet)

Fresh water depths (ft) 200'

 $\frac{350}{\text{Salt water depths (ft)}}$ 

a goal being mined in

IS C	oaı	peli	ig mii	iea .	111	area	$(X \setminus M)$	n
Coal	Der	oths	(ft):					
000.2			()					

Casing	Used in	Left	Cement    Fill Up
Tubing	Drilling	in Well	Cu. Ft.
Size			400 400 400 400 400
5 1/2"		2949'	
2 3/8'		2789	
		1	

OPEN FLOW DATA

\*SEE BACK OF RECORD

Gas: Initial open flow 13 Final open flow 13	O MCF/d Oil: Initial open O MCF/d Final open ween initial and final to	flow Bbl/d Bbl/d ests 24 Hours
Final open flow	MCF/d Oil: Initial open MCF/d Final open ween initial and final to	flow Bbl/d Bbl/d 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:	VIKING ENERGY CORPORATION
	BV: Michael timbertor
	Date: 5-/3-97

PARTIAL PLUGGING DATA:
SET FRAC PLUG AT 2949' AND REMOVED

#### SQUEEZE CEMENT DATA:

5 1/2" CASING PERFORATED 8 HOLES 2937-39'; CEMENT WITH 150 SKS 50/50 POZ, 2% GEL, 10% SALT; WIPER PLUG AT 2913

CEMENT TOP AT 2434'; PERFORATE 4 HOLES 2404-2405'; CEMENT WITH 100 SKS 50/50 POZ, 2% GEL, 10% SALT, WIPER PLUG AT 2356

#### RECOMPLETION DATA:

FRAC SHALE 2654-2786 (15 HOLES) NITROGEN FRAC 799,000SCF N2, 500 GAL.15% HCL

FRAC SHALE 2384-2389 (18 HOLES) FOAM FRAC(75Q), 27,000 LBS 20/40 SANDFROM 4-16PPG, 364,000 SCF N2, 500 GAL. 15%HCL, BKDN 2 , 746 PSI

FRAC SHALE 2291-2362 (14HOLES) NITROGEN FRAC, 799,000 SCF N2 , 500GAL. 15% HCL

SEE ORIGINAL RECORD FOR ADDITIONAL FORMATION INFORMATION AND FLOW DATA: