10/14/2022

## State of West Virginia Department of Environmental Protection - Office of Oil and Gas Well Operator's Report of Well Work

API <u>47</u> - 087	_ 04806	County ROANE		District S	MITHFIEL	.D	
Quad LOONEYV	ILLE 7.5'	Pad Name FERF			Name CL		
Farm name WILLIE				Well Num			
		H.G. ENERGY LL	С				
Address 5260 Du	PONT ROAD	City PAF	RKERSBURG	State	WV	Zip _	26101
	Top hole oint of Curve	Attach an as-drille Northing 4,285,148 M Northing Northing 4,285,273 M		e, and deviation Easting 476,099 Easting Easting 475,960	9 M		
Elevation (ft) 1,0	55' GL	Type of Well	■New □ Existing	Туре	of Report	⊐Interim	<b>Final</b>
Permit Type	Deviated   H	Iorizontal   Horizon	tal 6A □ Vertic	al Deptl	туре п	□ Deep	Shallow
Type of Operation	□ Convert □ I	Deepen Drill 🗆	Plug Back □ R	ledrilling [	Rework	□ Stimula	te
Well Type □ Brine	e Disposal □ CBN	M □ Gas ■ Oil □ Sec	ondary Recovery	□ Solution Min	ing 🗆 Stor	age 🗆 O	ther
Type of Completion Drilled with □ Cal  Drilling Media Su  Production hole	ble Rotary	ıltiple Fluids Produc r □ Mud ≜Fresh Wat □ Fresh Water ≜ Brine	ter Intermedi	Gas □ NGL ate hole ■ Ai		Other	Vater □ Brine RECEIVED of Oil and Gas
Mud Type(s) and A	dditive(s)						1 2 2022
						Environm	epartment of ental Protection
Date permit issued	6/16/22	Date drilling comm		Date	e drilling ce		8/10/22
Date completion act	ivities began	8/17/22	Date completion	activities cease	d	8/23/22	
Verbal plugging (Y	N) N	Date permission granted	-	Granted	l by		
Please note: Operat	or is required to s	ubmit a plugging applica	ation within 5 days	of verbal permi	ssion to plu	g	
Freshwater depth(s)	ft	N/A	Open mine(s) (Y/	N) depths		None	
Salt water depth(s) i		1800'	Void(s) encounter	ed (Y/N) depth	18	Non	е
Coal depth(s) ft _		I/A	Cavern(s) encoun	tered (Y/N) dep	ths	Nor	ne
Is coal being mined	in area (Y/N)	N				Reviev	wed by:

WR-35

11.45	
Rev.	8/23/13

Rev. 8/23/13										
API 47-087	04806	Farm na	ame WILLIE	KING		We	ell number_1	32		
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		nent circulate (Y/N) ide details below*	
Conductor	15"	13 3/8"	10'	New	LS	S 54#			Sand In	
Surface	8 7/8"	7"	449.85	New	LS	S 17#			Y	
Coal /										
ntermediate 1										
ntermediate 2										
ntermediate 3										
Production	6 1/4"	4 1/2"	2373.6'	New	J-5	5 11.6#			Y	
Pubing										
Packer type and de	epth set									
CHARACT	Circulated Est. 60 s	sks to surface on 7" job Numbe			4 1/2" job Yield	Volum	e Ce	ment	WOC	
CEMENT DATA	of Cement	of Sack			ft <sup>3</sup> /sks)	(ft 3)		(MD)	(hrs)	
Conductor										
Surface	Reg Neat	130	15.	6	1.18	153	Su	rface	8	
Coal										
ntermediate 1										
ntermediate 2										
ntermediate 3								E01	8	
Production	50:50 Pozmi	x 125/12	5 13.2/1	14.2 1.	1.64/1.27		9	50'		
Cubing										
Drillers TD (ft Deepest forma Plug back pro-	tion penetrated	Big Injun			TD (ft) 236 x to (ft) N				Office of Oil and G	
Kick off depth		a caliper	density		uted/direct na ray		induction temperature		WV Department of vironmental Protect	
DESCRIBE T	Yes No	Convention  IZER PLACEM  Ilizer placed mld string and 42	ENT USED FO	ewall OR EACH (			gs collected		□ No	
		AS SHOT HOLI		No I	DETAILS	S.				
WAS WELL (	COMPLETED	OPEN HOLE?	□ Yes 🗂 Ì	No DE	TAILS _					

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED \_\_\_

Rev. 8/23/13

API 47- 087\_-04806 Farm name\_WILLIE KING

Well number 132

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	8/17/22	2228'	2236'	32	Big Injun
	0/11/22	LLLO			
					Office of Oil and Gas

Please insert additional pages as applicable.

OCT 1 2 2022

## STIMULATION INFORMATION PER STAGE

WV Department of Environmental Protection

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	8/23/22	15.1	1434	1692	1180	3000	119	250 gals HCL
	UIZUIZZ	10.1	1101					
						-		
				+				

Please insert additional pages as applicable.

10/14/2022

WR-35 Rev. 8/23/13								1
API 47- 087	_ 04806	Farm	name_WILLIE	KING		Well n	umber	132
PRODUCING	FORMATION(	<u>S)</u>	<u>DEPTHS</u>					
Big Injun			2038'- 2116'	_ TVD	2175'- 2267'	MD		RECEIVED Office of Oil and Gas
								OCT 1 2 2022
								WV Department of Environmental Protection
Dloogo ingart ad	lditional pages a	e annlicable				======		Environmental Protection
GAS TEST	□ Build up □	) Drawdown	□ Open Flow	(	OIL TEST	Flow 🗆	Pump	
SHUT-IN PRE	SSURE Surf	face	_psi Botto	m Hole	psi	DURAT	ION O	F TESThrs
OPEN FLOW	Gas	Oil	NGL		Water	GAS M	EASU	RED BY
OF ISIN LIBO W		fpd 1		bpd	bpd			□ Orifice □ Pilot
	-	·	*					
LITHOLOGY/	TOP	BOTTOM	TOP	BOTTOM				
FORMATION	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	DEPTH IN I				RECORD QUANTITYAND
	NAME TVD	TVD	MD	MD	TYPE OF F	LUID (FRES	HWATI	ER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sand/Shale	0	1904	0	2017				
Little Lime	1904	1922	2017	2035	_			
Pencil Cave	1922	1929	2035	2046 2175				
Big Lime	1929	2038	2046 2175	2267	Di	illed direction	onal N 4	8.1° W a distance of 614'
Big Injun	2038	2116	2267	2403		ilica directi	Jiidi IV	O// 17 d distance = 1 = 1
Shale	2116 2234	2234	2403	2400				
TD	2234		2-100					
Please insert ac	Iditional pages a	as applicable.						
Drilling Contra	ctor Noah Horn	Well Drilling						
Address 1070 S	Sandy Valley Lane		City	Vansant		State	VA	Zip <u>24656</u>
		n Wall Surveye						
Logging Comp	any Appalachia	n well Surveys	City	Cambridge		State	ОН	Zip_43725
Address 10291	Onio Avenue		City	Jamonaga		Biato		
Cementing Cor	mpany Lightning	j Energy Servic	es					
Address PO Bo	x 580		City	Bridgeport		State	WV	Zip_26330
		oo Woll Sanica	e					
Stimulating Co	mpany Relian	to 230	City	Erie	-	State	PA	Zip 16507
	anberry Street Sui		City			51410		
riease insert ac	TOTHOLIST PARCES	so applicable.						
Completed by	Roger Heldma	n			Telephone	304-420-	-1107	
Signature	Der la	Welde a-	Title O	perations Ma	nager		Date 1	0/6/22
0						am : 67	OCT TO	0/1
Submittal of H	ydraulic Fractu	ring Chemical	Disclosure Info	rmation	Attach copy	of FRACE	OCUS	Kegistry
								1/1/
								//21212214/20
								//10.
Suntilling of E	ydraune 11acuu	mg chemical	E AUGUSTATO INTO					Registry 10-12-1221