10/30/2015

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

API 47 - 087 - 0	04762 County	ROANE	District SMITHFIELD				
Quad LOONEYVILLE 7	.5' Pad Nam	e ELKANAH SMITH	Field/Pool Name C				
Farm name FISHER, FRI	EDDIE ET AL		Well Number 118				
Operator (as registered with	h the OOG) H.G. ENER	RGY LLC					
Address 5260 DuPONT	ROAD	PARKERSBURG	State WV	Zip 26101			
As Drilled location NAD Top Landing Point of 6 Bottom	hole Northing 4,284 Curve Northing	E	and deviation survey Casting 474,989 M asting 475,137 M				
Elevation (ft) 1,064'	GL Type o	of Well New Existing	Type of Report	□Interim ■Final			
Permit Type   Deviate	d 🗆 Horizontal 🗆	Horizontal 6A 🗆 Vertical	Depth Type	□ Deep ■ Shallow			
Type of Operation   Conv	vert 🗆 Deepen 💄 D	rill 🗆 Plug Back 🗆 Re	drilling   Rework	□ Stimulate			
Well Type ☐ Brine Dispos	sal □ CBM □ Gas □ C	il Secondary Recovery	Solution Mining   St	orage   Other			
Drilling Media Surface h	Rotary			□ Other			
Production hole Air Mud Type(s) and Additive N/A		<b>♣</b> Brine					
Date permit issued 2	/13/15 Date drill	ing commenced8/20/1	5 Date drilling	ceased 8/27/15			
Date completion activities	began 8/31/15	Date completion a	ectivities ceased	9/3/15			
Verbal plugging (Y/N)	N Date permission	on granted	Granted by				
Please note: Operator is re	quired to submit a pluggi	ng application within 5 days o	of verbal permission to p	blug			
Freshwater depth(s) ft	None	Open mine(s) (Y/N	) depths	None			
Salt water depth(s) ft	1780'	Void(s) encountere		None			
Coal depth(s) ft	None	Cavern(s) encounte	Heceived ered (Y/N) depths	None			
Is coal being mined in area	(Y/N)N	V Office	ent Oil & Gas				
The season of milds and the site of a s			CT 0 0 2015	Daviound by			

API 47- 087	04762	Farm na	me_FISHER,	FREDDIE	ETAL	Well	number_11	8	
CASING	Hole	Casing		New or	Grade		Basket		nent circulate (Y/ N
STRINGS	Size	Size	Depth	Used	wt/ft		Depth(s)		ide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	l	.s			Sand In
Surface	8 3/4"	7*	507'	New	ι	.s	64'		Y
Coal									
Intermediate 1			<del></del>						
Intermediate 2				<u> </u>	<u> </u>				
Intermediate 3					1	1			
Production	6 1/4"	4 1/2"	2513.9'	New		-55			Υ
Tubing	<del>  • "  </del>				<del>                                     </del>	+			-
Packer type and de	epth set							<u> </u>	
Comment Details	Circulated Est. 50	sks to surface on 7° sur	face cement job. Circ	ulated Est. 35 sk	s to surface on	1 4 1/2" cement j	ab.		
CEMENT DATA	Class/Type Number of Cement of Sacks				Yield Volume (ft <sup>3</sup> /sks) (ft <sup>1</sup> )		Cen Top (		WOC (hrs)
Conductor	or cement	OI Sack	- me (pp	. <u>,</u> (	. , , , ,	120, 41	1.001		(110)
Surface	Reg Neat	130	15.6	;	1.18	154	Surf	ace	8
Coal	1109 11000					.5,	<del>                                     </del>		
Intermediate I									
ntermediate 2						<del></del>			
Intermediate 3									
Production	50:50 Pozmi	x 100/12	5 13.2/14	42 16	54/1.27	164/186	37	78'	8
Tubing	30.30 7 02111	100/12	5 13.21	7.2	77.1.2.1	10-7100	-		
Drillers TD (ft Deepest forma Plug back pro-	tion penetrated	Big Injun			TD (ft) 2536 to (ft) N/A				
Kick off depth	(tj) <u>eoo.</u>							-	
Check all wire	line logs run	a caliper neutron	■ density ■ resistivity		ted/direction		iduction emperature	□soni	c
						•		= Vac	
Well cored [	Yes A No	Conventi	onal Side	wall	W	ere cuttings	collected	<b>1</b> 1 C5	□ No
DESCRIBE T	HE CENTRAL	IZER PLACEMI							
DESCRIBE T	HE CENTRAL								
DESCRIBE T	HE CENTRAL	IZER PLACEMI							
DESCRIBE T	HE CENTRAL	IZER PLACEMI							
DESCRIBE TI 20 Controlizore overy 88 f	HE CENTRAL from bottom on 4 1/2°, Cant	IZER PLACEMI	ENT USED FO	OR EACH C	ASING ST	FRING			
DESCRIBE TI 20 Controlizore overy 88 f	HE CENTRAL from bottom on 4 1/2°, Cant	IZER PLACEMI	ENT USED FO	OR EACH C	ASING ST	FRING	F	Receiv	red
DESCRIBE TI 20 Centralizons every 88 f	HE CENTRAL them bottom on 4 1/2*, Cent	IZER PLACEMI	E - Yes	No D	ASING ST	FRING	Office	Receive of Oi	red I & Gas
DESCRIBE TI 20 Cantralizons every 88 f	HE CENTRAL them bottom on 4 1/2*, Cent	IZER PLACEMI relizer placed mid string on 7	E - Yes	No D	ASING ST	FRING	Office	Receiv	red I & Gas

API 47- 087 - 04762 Farm name\_FISHER, FREDDIE ET AL Well number\_118

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft	Number of Perforations	Formation(s)
1	8/31/15	2352'	2362'	40	Big Injun
					2000
	-				

Please insert additional pages as applicable.

## STIMULATION INFORMATION PER STAGE

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	9/3/15	5	1245	1984	513	2,500	148	
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Please insert additional pages as applicable.

DCT 08 2015

API 47- 007	04762	Farm	name_FISHER	, FREDDIE	ET AL Well	number	118	
PRODUCING I	FORMATIO	N(S)	DEPTHS					
Big Injun			2102'- 2119'	mun 23	340'- 2366' MD			
big injuri			2102-2119	_TVD _23	MD			
Please insert ad	ditional page:	s as applicable.						
GAS TEST	□ Build up	□ Drawdown	□ Open Flow	OI	L TEST 🗆 Flow	⊒ Pump		
SHUT-IN PRES	SSURE Su	ırface	psi Botto	m Hole	psi DURA	TION O	F TEST	hrs
OPEN FLOW	Gas	Oil	NGL	W	ater GAS N	MEASI	REDRY	
JI ENT LOW			bpd		bpd 🗆 Estin			□ Pilot
.ITHOLOGY/	TOP	воттом	TOP	воттом				
ORMATION	DEPTH IN F				DESCRIBE ROCK TY	PE AND	RECORD QUA	NTITYAND
	NAME TVD	TVD	MD	MD	TYPE OF FLUID (FRE	SHWAT	ER, BRINE, OI	L, GAS, H <sub>2</sub> S, ETC
Sand/Shale	0	1563	0	1607				
Sand	1563	1588	1607	1636				
Shale	1588	1622	1636	1674				
Sand	1622	1764	1674	1854				
Shale	1764	1780	1854	1876				
Sand	1780	1920	1876	2093				
Little Lime	1920	1944	2093	2120				
Pencil Cave	1944	1952	2120	2130				
Big Lime	1952	2073	2130	2302				
Keener	2073	2102	2302	2340	2000-000			
Big Injun	2102	2119	2340	2366	Drilled direc	tional S	15.4° E a dista	nce of 751'
Shale	2119	2264	2366	2570				
10	2264		2570					
Please insert ad	ditional page:	s as applicable.			I.			
Orilling Contra Address 11565	State Route 676	iming	City	Vincent	State	ОН	Zip 4578	4
			City	7.11.30111	Sidie		Zip	
ogging Comp	any Weatherf	ord International						
Address 777 No	rth River Avenu	е	City	Weston	State	WV	Zip 2645	2
Cementing Con	npany Univer	sai Services		Ruckhanner	0	WV	Zip 2620	1
Address 14 Sew	er Plant Rd		City	Buckhannon	State	VVV	Zip _2020	,
	mpany Prod	lucers Service C	orp.					
Stimulating Co.		A STATE OF THE PARTY OF THE PAR		Zanesville	State	ОН	Zip 4370	

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry

OCT 08 2015

87.04762

Prepared for:

H G Energy

**Dustin Hendershot** 

304-481-7342



Prepared by:

**Producers Service Corp** 

Daniel L Graham

109 S. Graham St.

Zanesville, OH 43702

**Total Cost** 

740-454-6253

INVOICE #:	18888

E Smith #118 WELL NAME:

Roane/WV COUNTY/STATE:

TOWNSHIP/FIELD: Clover Field

DATE of SERVICE: 9/3/2015

CUSTOMER PO#:			- 14	1.5
Description	Notes	Amount	Units	Unit Cos
FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS		1	EA	
BLENDER CHARGE 0-10 BPM	- English and a second	1	EA	
MILEAGE CHARGE PER UNIT ONE WAY	2 Units @150Miles	150	MI	
IC ACID 15%		250	GAL	
PRO HIB II		0.5	GAL	
ACID DELIVERY		2	HR	
PRO CLA LOK (KCL SUBSTITUTE)		15		
PRO CEA LOR (RCL SUBSTITUTE)		5		
PRO NE-21		150	LB	
PRO GEL 4		50	LB	
BUFFERI		50		
BUFFER II		1		
BIO CLEAR 750		15		
AP BREAKER		10		
BXL-A		10		
BXL-10C		25		
SAND 20/40 OTTAWA			TMILE	
SAND DELIVERY / TON MILES		1	STAGE	
DATA VAN				1
				- 5
4.5				
				-

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