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	_ 04771	County ROANE		District Si	MITHELE	LU	
Quad LOONEYVILLE			IG, A.J.	_ Field/Pool	Name Cl	LOVER	
Farm name FISCHER	RICHARD &						
Operator (as registered v	with the OOG)	H.G. ENERGY LLC					
Address 5260 DuPON	NT ROAD	City PAR	RKERSBURG	State	WV	Zip	26101
T Landing Point	of Curve No	Attach an as-drilled orthing 4,284,622 M orthing children 4,284,766 M	Ea	nd deviation asting 475,796 sting 475,914	6 M		·
Elevation (ft) 1,189'			New DExisting			□Interim	## ## ## ## ## ## ## ## ## ## ## ## ##
Permit Type Devi	ated Hor	izontal 🗆 Horizont	al 6A D Vertical	Depti	h Type	Deep	
Type of Operation □ C	onvert 🗆 De	epen 🛭 Drill 🗆	Plug Back 🛮 🗆 Red	rilling 🗆	Rework	□ Stimula	ate
Well Type □ Brine Dis	posal □ CBM	□ Gas ❷ Oil □ Seco	ondary Recovery 🗆 :	Solution Min	ing 🗆 Sto	orage 🗆 C	Other
Type of Completion B Drilled with □ Cable	■ Rotary				₽ Oil	Other _	
Drilling Media Surface Production hole @ Air		□ Mud		e note e At	r U.Viuu	B LICSH	Water □ Brine
Mud Type(s) and Addit	ive(s)				RE	CEIVE	D ad Gas
				(Office C	71 CM CM	
Date permit issued	4/7/15	Date drilling comm	nenced 5/19/15	Dat	Δ\ e drilling o	JG 2 0 ? ceased	015 5/21/15
Date completion activiti		0/5/45		tivities cease	ا العدمد b:	-6/11/15	nent of
Verbal plugging (Y/N)	N Da	te permission granted		Grante	Phylion	mental	Protection
Please note: Operator is							
Freshwater depth(s) ft	N	one	Open mine(s) (Y/N)	depths		None	
Salt water depth(s) ft	40	40'	Void(s) encountered	(Y/N) dept	hs	Nor	
Coal depth(s) ft	Non	e	Cavern(s) encounter	ed (Y/N) dep	oths	No.	one
Is coal being mined in a	rea (Y/N)	N					

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API 47- <u>087</u>	<u>04771</u>	Farm na	ame_FISCHE	R, RICHAR	U & RON	MALD Wel	l number_2	:17 	
CASING	Hole	Casing		New or	Grade		Basket		nent circulate (Y/ N)
STRINGS	Size	Size	Depth	Used	wt/ft	r	Depth(s)	Provi	ide details below*
Conductor	12 1/4"	11 5/8"	30'	Used	!	LS			Sand In
Surface	8 3/4"	7*	591'	New		LS	64'		Υ
Coal				ļ					
Intermediate 1									
Intermediate 2					ļ	ļ			
intermediate 3			<u> </u>						
Production	6 1/4*	4 1/2°	2578.8'	New	J	-55			Υ
Tubing									
acker type and d	epth set								
Comment Details	Circulated Est. 50	sks to surface on 7° sur	face cement Job. Cir	culated Est. 15 sk	s to surface or	n 4 1/2" cement	l job.		
CEMENT DATA	Class/Type of Cement	Numbe of Sack			Yield t ³ /sks)	Volume		ement o (MD)	WOC (hrs)
Conductor									
Surface	Reg Neat	130	15.	.6	1.18	154	Sı	ласе	8
Coal									
ntermediate 1									
intermediate 2									
ntermediate 3									
Production	50:50 Pozm	ix 105/12	5 13.2/	14.2 1.6	64/1.27	172/186	3	14'	8
ubing									
Orillers TD (ft) 2602'		•	Loggers 7	CD (11) 260)1 [,]			
-	tion penetrated	Big Injun			to (ft) N/A				
Plug back pro	-				· ·- (··)	-			
lug back pro	ccdare <u>**</u>								
Kick off depth	(ft) <u>650'</u>				-				
Check all wire	line logs run	国 caliper 图 neutron	自 density A resistivity		ted/directi a ray		induction temperature	e 🗆 soni	ic
Well cored E	Yes 🖺 No	Conventi	onal Side	ewali	W	ere cutting	s collected	■ Yes	□ No
		IZER PLACEM	ENT USED FO	OR EACH C	ASING S	TRING _		-	
		.,							CEIVED
 _									CEIVED of Oil and Gas
WAS WELL C	COMPLETED .	AS SHOT HOLE	E □Yes 🏻	No D	ETAILS			JA -	JG 20-2015
									- ant O
NAS WELL C	COMPLETED (OPEN HOLE?	□ Yes 🖺 î	NO DET	WIF2 —			-MA E) apartment of mental Protect
								nviron	mental Fluids
VERE TRAC	ERS USED	Yes 🛭 No	TYPE OF T	ΓRACER(S)	USED		· · · · · ·		

API 47-087 _ 04771 Farm name_FISCHER, RICHARD & RONALD_Well number_211

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft	Number of Perforations	Formation(s)
1	6/5/15	2380'	2388'	32	Big Injun
				 	
				-	
\vdash					
	_				
				<u> </u>	
		-			

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	6/11/15	5	912	1361	670	2,500	146	
								-
			-					
				-				
			-					
						 		
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<u> </u>						†		
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							WVD	epartmentor
Please	insert additio	onal pages as ap	oplicable.				Environn	epartment of nental Protection

Please insert additional pages as applicable.

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Rev. 8/23/13 API 47- 087	_ 04771	Farm	name FISCHE	R, RICHARI	D & RONALD Well i	numbe	_{r_} 211
	FORMATION	(S)	<u>DEPTHS</u> 2188'- 2215'		360'- 2392' MD		
	lditional pages a	Section 1997	□ Open Flow	OI	LTEST = Flow =	Pump	3
							OF TESThrs
OPEN FLOW	Gas	Oil		W		AFASI	IRED BY
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYL	PE AND	RECORD QUANTITYAND IER, BRINE, OIL, GAS, H₂S, ETC)
Sand/Shale	0	1594	0	1646			
Sand	1594	1650	1646	1700			
Shale	1650	1712	1700	1778			
Sand	1712	1888	1778	1992			
Shale	1888	1904	1992	2012			
Sand	1904	2018	2012	2151			
Little Lime	2018	2044	2151	2184			
Pencil Cave	2044	2054	2184	2196	/-		
Big Lime	2054	2159	2196	2337			
Keener	2159	2188	2337	2360			
Big Injun	2188	2215	2360	2392	Drilled direct	ional N	39.2° E a distance of 693'
Shale	2215	2396	2392	2602			
TD	2396		2602				
Please insert ad	ditional pages a	s applicable.					
Orilling Contract Address 11565 S	ctor Decker Drill State Route 676	ling	City	Vincent	State	ОН	Zip 45784
ogging Compa	any Weatherford	d International	City	Weston	State	WV	Zip 26452
	npany Universal	Services					
Address Hall Rd			City	Buckhannon	State	WV	Zip 2620 EIVED
timulating Cor	npany Produc uth Graham Street	ers Service Cor	rp. City	Zanesville	State	ОН	Office of Oil and Gas Zip 43701 AUG 2 0 2015
	ditional pages a		City	Section of the Parish	State	357.	AUG 2 0 2015
Completed by	Roger Heldman	1 ,,			Telephone 304-420	-1107	WV Department of
ignature	Her Me	dan	Title O	perations Manag	jer	Date 8	8/17/15. Protect

Prepared by: Prepared for: **Producers Service Corp** H G Energy Daniel L Graham 109 S. Graham St. Dustin Hendershot Zancsville, OH 43702 304-481-7342 740-454-6253 18522 INVOICE #: A J Epling 211 WELL NAME: Roane/WV COUNTY/STATE: TOWNSHIP/FIELD: Clover Field DATE of SERVICE: 6/11/2015 **CUSTOMER PO#: Total Cost Unit Cost** Units Amount Notes Description EA FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS 1 EA **BLENDER CHARGE 0-10 BPM** MI 2 Units @150Miles MILEAGE CHARGE PER UNIT ONE WAY 250 GAL IC ACID 15% 0.5 GAL PRO HIB II 2 HR **ACID DELIVERY** 15 GAL PRO CLA LOK (KCL SUBSTITUTE) 5 GAL PRO NE-21 150 LB PRO GEL 4 50 LB **BUFFER I** 50 LB **BUFFER II** 1 LB **BIO CLEAR 750** 15 LB AP BREAKER 10 GAL BXL-A 10 GAL BXL-10C 25 CWT SAND 20/40 OTTAWA TMILE 100 SAND DELIVERY / TON MILES 1 STAGE **DATA VAN**

Customer Approval: _

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