

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

API 47 - 033 - 04352 County HARRISON District TEN MILE  
Quad WOLF SUMMIT 7.5' Pad Name FLETCHER, ELIZABETH Field/Pool Name WOLF SUMMIT  
Farm name ROSEMARY ROACH, ET AL Well Number 18  
Operator (as registered with the OOG) H.G. ENERGY LLC  
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,351,327 M Easting 544,926 M  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1,057' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
N/A

Date permit issued 6/21/12 Date drilling commenced 7/31/12 Date drilling ceased 8/28/12  
Date completion activities began 8/29/12 Date completion activities ceased 10/26/12  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 125' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N  
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

**APPROVED**

NAME: Jacquelin Thornton  
DATE: 3/22/2016

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Reviewed by:

**04/01/2016**

API 47- 033 - 04352 Farm name ROSEMARY ROACH, ET AL Well number 18

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor							
Surface		8 5/8"	433'	New	LS		Existing
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production		4 1/2"	2598'	New	J-55		Existing
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Reg Neat	170	15.6	1.18	201	Existing	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	290	14.2	1.27	368	Existing	8
Tubing							

Drillers TD (ft) 2749' Loggers TD (ft) 2748'

Deepest formation penetrated Fifth Sand Plug back to (ft) 2717'

Plug back procedure Plugged back w/ Pea Gravel 2700'- 2749', Calseal 2688'- 2700', Cleaned out to 2717' after completion

Kick off depth (ft) N/A

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS Well drilled deeper to 2749', plugged back to 2688' Treated open hole via 2 7/8" J-55 tubing on packer, after treatment cleaned out to 2717'

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

API 47-033 - 04352 Farm name ROSEMARY ROACH, ET AL Well number 18

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

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	10/26/12	8	2415	2665			41	

Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Fifth Sand	2680'- 2686'	TVD MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd  
GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
Original TD	0	2646	0		
Shale	2646	2680			
Fifth Sand	2680	2686			
Shale	2686	2749			
DD TD	2749				

Please insert additional pages as applicable.

Drilling Contractor \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Stimulating Company Producers Service Corp.  
Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107  
Signature \_\_\_\_\_ Title Operations Manager Date 12/18/15

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Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry FEB 24 2016

04/01/2016



Producers Service Corporation  
109 South Graham Street  
Zanesville, OH 43701  
(740) 454-6253  
FAX (740) 454-0775  
www.producerservicecorp.com

## X-Link Frac

H G Energy  
Dustin Hendershot

Treater: Jason Stanbery  
10/26/2012  
Well: E Fletcher 18  
Field: Wolf Summit  
Harrison, WV

Tubing Size: 2 7/8 Depth: 2675'

Casing Perforations No. Shots From To

Open Hole: Size: From: 2675' To: 2686'

Formation: Fifth Sand

Load/Break	21	Pad	20
Treatment	0	Flush	0
Total	41	Avg Rate	8
Avg PSI	2415	5 Min Shut In	0
Break	2665		

INV 14816 Incomplete

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