

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

API 47 - 15 - 00487 W County CLAY District UNION
Quad ELKHURST Pad Name _____ Field/Pool Name _____
Farm name LAWRENCE D. HINKLE Well Number YOUNG 3
Operator (as registered with the OOG) RAVEN RIDGE ENERGY, LLC
Address 3230 PENNSYLVANIA AVENUE City CHARLESTON State WV Zip 25302

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing N/A Easting N/A
Landing Point of Curve Northing N/A Easting N/A
Bottom Hole Northing N/A Easting N/A

Elevation (ft) 1350' 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)
SOAP

Date permit issued 10/19/2010 Date drilling commenced 11/1/2010 Date drilling ceased 11/6/2010
Date completion activities began 1/15/2011 Date completion activities ceased 1/30/2011
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 200' Open mine(s) (Y/N) depths N
Salt water depth(s) ft NONE Void(s) encountered (Y/N) depths N
Coal depth(s) ft 635' - 640' AS PER WELL RECORD Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

NAME: Jacqueline Thornton
DATE: 3/28/2016

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Reviewed by: _____

04/01/2016

API 47-15 - 00487

Farm name LAWRENCE D. HINKLE

Well number YOUNG 3

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor		10"	18'	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Surface		8 1/4"	375'	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2500'	NEW	J55 - 10.5		YES
Tubing		2"	965'	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	UNKNOWN	UNKNOWN	---	---	---	---	---
Surface	UNKNOWN	UNKNOWN	---	---	---	---	---
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	CLASS I	300	14.2	1.29	193.5	GROUND LEVEL	8
Tubing	UNKNOWN	UNKNOWN	---	---	---	---	---

Drillers TD (ft) 2461'

Loggers TD (ft) 2431'

Deepest formation penetrated BIG INJUN

Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) _____

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 _____

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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API 47- 15 - 00487 Farm name LAWRENCE D. HINKLE Well number YOUNG 3

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>BIG INJUN</u>	<u>2332' - 2348'</u>	<u>TVD</u>	<u>MD</u>
<u>SQUAW</u>	<u>2354' - 2362'</u>		

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 12 hrs

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

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 TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
CLAY	0	16'	0		
SAND	16'	26'			
WHITE SLATE	26'	46'			
SAND	46'	136'			
SLATE	136'	196'			
SAND	196'	238'			
SLATE	238'	257'			
SAND	257'	345'			
COAL	345'	349'			
SAND	349'	375'			
SLATE	375'	380'			
SAND	380'	403'			
SLATE	403'	453'			
SAND	453'	600'			

Please insert additional pages as applicable.

Drilling Contractor R & R WELL SERVICE
Address AMBLER RIDGE City WALTON State WV Zip _____

Logging Company J-W WIRELINE COMPANY
Address 376 COUNTY ROAD 33/22 City WESTON State WV Zip 26452

Cementing Company BAKER HUGHES (BJ SERVICES)
Address 1681 E MAIN STREET City BRIDGEPORT State WV Zip 26330

Stimulating Company BAKER HUGHES (BJ SERVICES)
Address 1681 E MAIN STREET City BRIDGEPORT State WV Zip 26330

Please insert additional pages as applicable.

Completed by DANIELLE N. BOGGS Telephone 304-344-9291
Signature *Danielle N. Boggs* Title OPERATIONS MANAGER Date 12/18/2013

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Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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API: 47-1500483Farm Name: LAWRENCE D. HINKLEWell Number: YOUNG #3

Lithology/ Formation	Top Depth Depth in Ft TVD	Bottom Depth in Ft TVD	Describe Rock Type Fluid Type
SLATE & SHELLS	600	610	
SAND	610	630	
SLATE & SHELLS	630	731	
SAND	731	741	
BLACK SLATE	741	820	
WHITE SLATE	820	828	
SAND	828	856	
SLATE	856	859	
SAND	859	874	
SAND	874	912	
SALT SAND	912	1805'	
SHALE	1805'	1950'	
MAXTON	1950'	1995'	
LITTLE LIME	1995'	2012'	
BIG LIME	2012'	2032'	
BIG INJUN	2332'	2348'	
SHALE	2348'	2354'	
SQAW	2354'	2362'	

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