

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

API 47-15-00486 County CLAY District UNION  
Quad ELKHURST Pad Name \_\_\_\_\_ Field/Pool Name \_\_\_\_\_  
Farm name YOUNG Well Number YOUNG 2  
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) 1171' 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 11/03/2010 Date drilling commenced 11/2/2010 Date drilling ceased 11/16/2010  
Date completion activities began 2/25/2011 Date completion activities ceased 3/10/2011  
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 50' - 100' Open mine(s) (Y/N) depths \_\_\_\_\_  
Salt water depth(s) ft NONE Void(s) encountered (Y/N) depths \_\_\_\_\_  
Coal depth(s) ft 345' - 349' AS PER WELL RECORD Cavern(s) encountered (Y/N) depths \_\_\_\_\_  
Is coal being mined in area (Y/N) N

RECEIVED  
Office of Oil & Gas  
DEC 23 2013  
Reviewed by:  
WV Department of  
Environmental Protection

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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 1/4"	480'	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2180'	NEW	J55 - 10.5		YES
Tubing							
Packer type and depth set							

Comment Details This was a drill deeper permit - the original casing and cement were run on this well in 1947 so additional information is unknown.

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	UNKNOWN	UNKNOWN	----	---	---	---	---
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	CLASS I	270	14.2	1.29	348.3	GROUND LEVEL	8
Tubing							

Drillers TD (ft) 2312' Loggers TD (ft) 2240'

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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PRODUCING FORMATION(S)	DEPTHS
BIG INJUN	2035' - 2175' TVD _____ MD
_____	_____
_____	_____
_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface 1300 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 12 hrs  
 OPEN FLOW Gas 15 mcfpd Oil 1 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 <sub>2</sub> S, ETC)
CLAY	0	16'	0		
SAND	16'	81'			
WHITE SLATE	81'	116'			
SAND	116'	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 25286

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

Cementing Company UNIVERSAL WELL SERVICE  
 Address 5 HALL RUN ROAD City BUCKHANNON State WV Zip 26201

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

API: 47-1500483Farm Name: YOUNGWell Number: YOUNG #2

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'	1770'	
SHALE	1770'	1920'	
MAXTON	1920	1975'	
LITTLE LIME	1975'	1980'	
BIG LIME	1980'	2035'	
BIG INJUN	2035'	2175'	
SHALE	2175'	2300'	