



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
Telephone: (304) 926-0499
Fax: (304) 926-0456

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

Well Operator's Report of Well Work
WR-35
Correction Report

Date: July 15, 2015

API No.: 47-059-02248

To: **Quality Natural Gas, LLC** **Attn: Darrell Fluharty**

Dear Oil and Gas Operator,

You have received this letter due to corrections and/or updates that are needed on a recently submitted WR-35 form, "Well Operator's Report of Well Work." To facilitate closure of your well permit(s), and to satisfy various regulatory requirements, a thorough and accurately completed Form WR-35 must be submitted. Horizontal wells permitted as "H-6A" wells have additional requirements.

The list on the following page will detail the corrections or additional information needed. Please complete edits and required updates to the WR-35 form and return to this office within 15 days of receipt of this letter. An instruction page is available at: <http://www.dep.wv.gov/oil-and-gas/GI/Forms/Pages/default.aspx> . If you should have any questions then feel free to contact the WVDEP Office of Oil and Gas.

Received
Office of Oil & Gas
JUL 30 2015

Sincerely,

Andrew L. Lockwood - WVDEP

WR-35 Correction Report

Operator: Quality Natural Gas, LLC Attn: Darrell Fluharty

Well API Number: 47-059-02248

Date: July 15, 2015

Updates Needed:

- Correction to casing info. _____
- No freshwater or salt water depths reported. _____
- No open flow data reported. _____
- No details of perforated intervals submitted, or reported with insufficient detail.
- Partial or no Lithology log reported. _____
- Well e- log submitted (deep well only). _____
- Drilled as deep well but permitted as shallow. _____
- Old WR-35 form used. Updated WR-35 form is available on WVDEP webpage.

Horizontal H6A Well Deficiencies

- As-Drilled Plat (mylar) and profile not included. _____
- Frac Focus chemical list needed. _____
- Borehole deviation survey needed.
- Perforation and Stimulation record is incomplete. _____
- See Edited WR-35 form. _____

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OTHER:

Location of well not submitted in UTM format.

07/22/2016

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

API 47-590-2248 County MINGO District MAGNOLIA
Quad MAJESTIC Pad Name _____ Field/Pool Name _____
Farm name LOGAN COAL & TIMBER CORP. Well Number 2355
Operator (as registered with the OOG) QUALITY NATURAL GAS, LLC
Address P.O. BOX 480 City ALLEN State KY Zip 41601

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 959383.682 Easting 901029.32
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 812.8 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

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Date permit issued 9/30/2014 Date drilling commenced 12/11/2014 Date drilling ceased 12/19/2014
Date completion activities began 1/14/2015 Date completion activities ceased 1/14/2015
Verbal plugging (Y/N) N/A 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 NONE Open mine(s) (Y/N) depths _____
Salt water depth(s) ft NONE Void(s) encountered (Y/N) depths _____
Coal depth(s) ft NONE Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) NO

RECEIVED
Office of Oil and Gas
NONE
FEB 09 2015
NONE
Department of
Environmental Protection

Reviewed by:
A.L. 5/18/2015
07/22/2016
PREPARED

API 47-590 - 2248 Farm name LOGAN COAL & TIMBER CORP. Well number 2355

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	17 1/2"	13 3/8"	42'	New	LS		
Surface	12 1/4"	9 5/8"	422'	New	LS	378', 88'	YES
Coal							
Intermediate 1	8 7/8"	7"	2110'	New	LS		YES
Intermediate 2							
Intermediate 3							
Production	6 3/8"	4 1/2"	4300'	New	L-65		No - 500' up in 7"
Tubing							
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	Class A						
Surface	Class A	140	15.5	1.18	165.2	Surface	8
Coal							
Intermediate 1	Class A	100, 175	15.6, 12.3	1.18, 1.84	118, 322	Surface	8
Intermediate 2							
Intermediate 3							
Production	Class A	170	13.6	1.90	323	500' up in 7"	8
Tubing							

Drillers TD (ft) 4320' Loggers TD (ft) 4336'
 Deepest formation penetrated HARRELL SHALE Plug back to (ft) N/A
 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
For drilling purposes only.

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING 4 1/2" - 4132.24, 3963.58,
3794.92, 3626.26, 3457.60, 3268.94, 3120.28, 2951.62, 2782.96 and 2614.30

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 _____

API 47- 590 - 2248 Farm name LOGAN COAL & TIMBER CORP. Well number 2355

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
BIG LIME	2075-2330'	TVD	MD
SHALE (DEV., BROWN)	2994-4231'		

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface 380 psi Bottom Hole _____ psi DURATION OF TEST 96 hrs
 OPEN FLOW Gas Oil NGL Water GAS MEASURED BY
 596 mcfpd _____ bpd _____ bpd _____ bpd Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
SEE ATTACHED					

Please insert additional pages as applicable.


Drilling Contractor MOUNTAIN RIDGE
 Address 72 OLD 25 E City BARBOURVILLE State KY Zip 40906

Logging Company WEATHERFORD
 Address _____ City LONDON State KY Zip 40741

Cementing Company UNIVERSAL WELL SERVICES INC
 Address PO BOX 686 City ALLEN State KY Zip 41601

Stimulating Company UNIVERSAL WELL SERVICES INC
 Address PO BOX 686 City ALLEN State KY Zip 41601

Please insert additional pages as applicable.

Completed by Darrell Fluharty Telephone 606-874-8041
 Signature  Title Field Supervisor Date 2-6-2015

