

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

API 47 - 077 - 00109 County Preston District Portland
Quad Terra Alta, WV Pad Name Terra Alta Field/Pool Name Terra Alta
Farm name Bernadette Cole, et al Well Number 7418
Operator (as registered with the OOG) Columbia Gas Transmission LLC
Address 1700 MacCorkle Ave SE City Charleston State WV Zip 25314

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing _____ Easting _____
Landing Point of Curve Northing Not applicable Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1979.6 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)
Not applicable. Scope of work was to rework an existing well - obtained cased hole logs, replaced a wellhead valve, performed a coil tubing cleanout and acid stimulation.

Date permit issued 12.29.22 Date drilling commenced N/A Date drilling ceased N/A
Date completion activities began N/A Date completion activities ceased N/A
Verbal plugging (Y/N) N/A 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 None reported by driller when drilled Open mine(s) (Y/N) depths N
Salt water depth(s) ft None reported by driller when drilled Void(s) encountered (Y/N) depths N
Coal depth(s) ft None reported by driller when drilled Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

MAY 26 2023
Office of Oil and Gas
WV Department of
Environmental Protection

Reviewed by:
MDK 6/29/2023
09/15/2023

API 47-077 - 00109 Farm name Bernadette Cole, et al Well number 7418

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		existing well					
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
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		existing well					
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5116 Loggers TD (ft) _____
 Deepest formation penetrated Helderberg Plug back to (ft) _____
 Plug back procedure _____

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 N/A

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS N/A RECEIVED
 Office of Oil and Gas

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS N/A MAY 26 2023

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____ WV Department of Environmental Protection

API 47- 077 - 00109 Farm name Bernadette Cole, et al Well number 7418

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	N/A	existing well			

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)
	N/A		existing well					
						RECEIVED		
						Office of Oil and Gas		
						MAY 26 2023		

Please insert additional pages as applicable.

WV Department of
Environmental Protection

09/15/2023

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Chert</u>	<u>4816</u> TVD	<u>4816</u> MD
<u>Oriskany</u>	<u>4960</u>	<u>4960</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 _____ 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)
existing well	0		0		

Please insert additional pages as applicable.

Drilling Contractor Next LVL
Address 736 W Ingomar Rd, Units 268 City Ingomar State PA Zip 15127-6613

Logging Company Baker Atlas
Address PO Box 301057 City Dallas State TX Zip 75303-1057

Cementing Company Next LVL
Address 736 W Ingomar Rd, Units 268 City Ingomar State PA Zip 15127-6613

Stimulating Company Gladiator Energy LLC
Address 3200 Southwest Fwy City Houston State TX Zip 77027-7528

Please insert additional pages as applicable.

Completed by Maria Medvedeva Telephone 304-410-4313 RECEIVED Office of Oil and Gas
Signature Title Senior Wells Engineer STS Date 05/24/23 MAY 26 2023

Columbia Gas Transmission, LLC

1700 MacCorkle Ave., SE, Charleston, WV, USA 25314



May 25, 2023

WV DEP – Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304-2345

Enclosed is the post well work permit application for the following Columbia Gas Transmission existing storage well:

Terra Alta 7418 (API 47-077-00109)

If you have questions, feel free to call.

Regards,

A handwritten signature in black ink, appearing to read "Maria Medvedeva", written over a light blue horizontal line.

Maria Medvedeva
Senior Wells Engineer
Well Engineering & Technology
Columbia Gas Transmission, LLC
Mob: 304-410-4313
maria_medvedeva@tcenergy.com

RECEIVED
Office of Oil and Gas

MAY 26 2023

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