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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, May 18, 2020  
WELL WORK PERMIT  
Vertical / Re-Work

COLUMBIA GAS TRANSMISSION, LLC  
STORAGE TECHNICAL SERVICES - 6TH FLOOR  
1700 MACCORKLE AVE. SE.  
CHARLESTON, WV 25314

Re: Permit approval for COCO C 7325  
47-039-01575-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin  
Chief

Operator's Well Number: COCO C 7325  
Farm Name: BROWN, JAMES F.  
U.S. WELL NUMBER: 47-039-01575-00-00  
Vertical Re-Work  
Date Issued: 5/18/2020

A handwritten signature in blue ink, appearing to read "James A. Martin", is written over a faint, larger version of the signature.

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

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### CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

OK # 051415  
\$900  
4/2/2020

47-039-01575W

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION**

1) Well Operator: Columbia Gas Transmission, LLC 307032 Kanawha Elk Blue Creek, WV  
Operator ID County District Quadrangle

2) Operator's Well Number: Coco C 7325 3) Elevation: 899.4'

4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
(b) If Gas: Production \_\_\_\_\_ / Underground Storage X  
Deep X / Shallow \_\_\_\_\_

5) Proposed Target Formation(s): Oriskany Proposed Target Depth: 5327'

6) Proposed Total Depth: 5361' Feet Formation at Proposed Total Depth: Oriskany

7) Approximate fresh water strata depths: N/A

8) Approximate salt water depths: 1068' as reported by driller in 1952.

9) Approximate coal seam depths: None reported by driller in 1952.

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10) Approximate void depths,(coal, Karst, other): None reported by driller in 1952.

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11) Does land contain coal seams tributary to active mine? No

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12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Pull 2-3/8" tubing. Log the well. Perform a wellhead change. Perform coiled tubing cleanout using fresh water and nitrogen. Possibly acidize (1000 gals) and/or fracture stimulate (400 bbls fluid/25000 lbs sand) depending on log results.

13) **CASING AND TUBING PROGRAM**

4-17-20

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water	10-3/4"	?	43.5	457'	0	
Coal	8-5/8"	?	24	1660'	1660'	no record of cement
Intermediate	7"	?	23	5210'	5210'	30 sx.
Production	5-1/2"	J-55	17	5295'	5295'	88 sx.
Tubing	2-3/8"	J-55	4.6		5255'	
Liners						

Packers: Kind: N/A  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

WR-35  
Rev (5-01)

DATE: 10/2/08  
API #: 47-039-01575

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: Mellisa Dremen Cisco Operator Well No.: 7325

LOCATION: Elevation: 904 ft Quadrangle: Blue Creek

District: Elk County: Kanawha  
Latitude: 2.200 Feet South of 33 Deg. 27 Min. 30 Sec.  
Longitude 3.700 Feet West of 81 Deg. 25 Min. 00 Sec.

Company: Columbia Gas Transmission Corp

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 1700 MacCorkle Ave SE Charleston, WV 25325-1273				
Agent: Paul Amick	This is an existing storage well - 5255 ft of tubing was pulled and re-ran.			
Inspector: Terry Urban				
Date Permit Issued: 3/28/08				
Date Well Work Commenced: 7/23/08				
Date Well Work Completed: 9/27/08				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 5361				
Fresh Water Depth (ft.): not applicable - rework				
Salt Water Depth (ft.): not applicable - rework				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): <u>none reported</u> ft				

OPEN FLOW DATA

Producing formation Oriskany Sand Pay zone depth (ft) 5334 - 5358  
Gas: Initial open flow not applicable MCF/d Oil: Initial open flow none Bbl/d  
Final open flow 9,200 MCF/d No oil  
Time of open flow between initial and final tests not applicable Hours  
Static rock Pressure 1575 psig (surface pressure) after 24 Hours

Second Producing formation N/A Pay zone depth (ft)       
Gas: Initial open flow      MCF/d Oil: Initial open flow      Bbl/d  
Final open flow      MCF/d Final open flow      Bbl/d  
Time of open flow between initial and final tests      Hours  
Static rock Pressure      psig (surface pressure) after      Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: James E. Amos  
By: James E. Amos - Senior Storage Engineer - Columbia Gas Transmission Corp  
Date: 10/2/08

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Coco C storage well 7325

This is an existing storage well. Below is a summary of work performed.

- 1) Well was killed, tubing pulled, e-logs ran, cleaned to a depth of 5361 ft, tubing re-ran, new API wellhead installed, and fracture stimulated.

Logs Ran: Baker Atlas Logging	GR-Neutron
Baker Atlas Logging	MicroVertilog
Baker Atlas Logging	cement bond log.

Fracture stimulation:      1000 gals HCl acid  
                                     75 bbls fresh water  
                                     405 bbls gel  
                                     203.5 MCF nitrogen  
                                     26,000 lbs 20/40 sand  
                                     Avg BH rate: 18 BPM  
                                     Avg TP: 2674 psig  
                                     ISIP: 3180 psig

\* Note that no earthen pit was utilized. Swab and stimulation fluids recovered via steel tanks and transported to LAD in Wheeling, WV for processing.

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COCO C 7325 47-039-01575W

FORM U 97-P C 8 D

United Fuel and OIL COMPANY  
COMPANY

Approved  
*Jm*  
Superintendent

SERIAL WELL NO. 6975 LEASE NO. Pt. 2274 MAP SQUARE 7265

RECORD OF WELL NO. 6975 on the		CASING AND TUBING				TEST BEFORE SHOT
		SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	
JAMES F. BROWN # 20 farm of 7098						/10 of Water in _____ Inch
in Elk District		10	45.5#	457'2"	-0-	14 /10 of Merc. in 7 _____ Inch
Kanawha County		8	24#	1779'7"	1660'1"	Volume 5,955 _____ Cu. ft.
State of: West Virginia		7	23#	5474'1"	5267'1"	TEST AFTER SHOT
Field: Clendenin		2	4.6#	5477'6"	5356'8"	/10 of Water in _____ Inch
Rig Commenced	19					/10 of Merc. in _____ Inch
Rig Completed	19					Volume Well not shot _____ Cu. ft.
Drilling Commenced	1/30/52 19					Hours After Shot _____
Drilling Completed	5/29/52 19					Rock Pressure 18-Hr. _____
Drilling to cost	per foot					Date Shot Not shot _____
Contractor is: Olen Jones						Size of Torpedo _____
Address: Clendenin, W. Va.						Oil Flowed _____ bbls. 1st 24 hrs.
						Oil Pumped _____ bbls. 1st 24 hrs.
Driller's Name	D.E. Hones					Well abandoned and _____
	Senate Jones					Planned _____
Elevation:						

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Soil	0	5		
Red Rock	5	45		
Slate	45	75		
Red Rock	75	110		
Slate	110	125		
Red Rock	125	137		
Slate	137	147		
Sand	147	159		
Red Rock	159	163		
Slate & Shells	163	250		
Sand	250	368		
Slate Shells	368	410		
Sand	410	465		
Slate Shells	465	495		
Sand	495	558		
Slate Shells	558	568		
Sand	568	581		

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SERIAL WELL NO. 6975LEASE NO. Pt. 2274

Approved

*JCM*  
 SUPERVISOR

## DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Slate Shells	591	735		
Sand	735	765		Hole full water 1068'.
Slate Shells	765	825		Gas at 1798 to 1815'.
Sand	825	872		
Slate Shells	872	1040		Gas at 5334' to 5340 10/10/W-7# 22#
Salt Sand	1040	1410		5340 to 5357' 10/10/M 7# 22#
Slate	1410	1430		5357 to 5358 15/10-M 7# 22#
Sand	1430	1449		Gas Decreased 5358 to 5361 14/10-M-7# 22#
Red Rock	1449	1454		Gas pay 5334' to 5358'.
Slate Shells	1454	1523		Pocket below gas 5358 to 5361.
Red Rock	1523	1530		
Slate	1530	1600		
Little Lime	1600	1635		
Slate	1635	1645		
Pencil Cave	1645	1650		
Big Lime	1650	1795		
Injin Sand	1795	1925		
Slate Shells	1925	1955		
Weire Shells	1955	2095		
Slate Shells	2095	2380		
Brown Shale	2380	2395		
Brea Grite	2395	2410		
Slate Shells	2410	3395		
Brown Shale	3395	3475		
Slate Shells	3475	3760		
Brown Shale	3760	4200		
White Slate	4200	4700		
Brown Slate	4700	4810		
White Slate	4810	4845		
Brown Slate	4845	5080		
White Slate	5080	5155		
Black Slate	5155	5200		
Corniferous	5200	5327		
Oriskany	5327	5361		
Total Depth	5361			

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WW-2A  
(Rev. 6-14)

1.) Date: 03/17/2020  
2.) Operator's Well Number Coco C 7325  
State County Permit  
3.) API Well No.: 47-039-01575

**STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name Columbia Forest Products, Inc  
Address P.O. Box 160  
Craigs ville, WV 26205  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Terry Urban  
Address P.O. Box 1207  
Clendenin, WV 25045  
Telephone 304-549-5915

5) (a) Coal Operator  
Name Not operated  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_ on the above named parties by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Columbia Gas Transmission, LLC  
By: James Amos  
Its: Team Leader - Well Engineering & Technology  
Address: 48 Columbia Gas Rd  
Sandyville, WV 25275  
Telephone: 304-483-0073  
Email: james\_amos@tcenergy.com

Subscribed and sworn before me this 19 day of April 2020

My Commission Expires 9-19-2022  
Oil and Gas Privacy Notice



The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of its regular duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov)



47-039-01575 W

WW-2A Surface Waiver (4/16)

SURFACE OWNER WAIVER

County 039

Operator Operator well number

Columbia Gas Trans LLC Coco C 7325

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

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Chief, Office of Oil and Gas Department of Environmental Protection 601 57th St. SE Charleston, WV 25304 (304) 926-0450

Time Limits and methods for filing comments. The last day the operator files his Application. You have FIFTEEN (15) DAYS to file comments. Comments must be filed in person or received in the mail by the Chief's office no later than the date. Check with your postmaster to ensure delivery. If you have been contacted by the well operator and you have not filed comments, then the permit may be issued.

Comments must be in writing. Your comments must include the well operator's name and well number and the approximate location of the application. You may add other documents, such as maps, photographs, etc.

The Chief has the power to deny or condition a well work permit if:

- 1) The proposed well work will constitute a hazard to the surface owner.
- 2) The soil erosion and sediment control plan is inadequate.
- 3) Damage would occur to publicly owned lands.
- 4) The proposed well work fails to protect fresh water resources.
- 5) The applicant has committed a substantial violation of the rules promulgated under Chapter 22, a well work permit.

If you want a copy of the permit as it is issued, you must request a copy from the Chief.

List of Water Testing Laboratories. The Office of Oil and Gas maintains a list of laboratories that are approved to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application for a Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW2-B, a survey plat, WW-9, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature Date

Company Name Columbia Gas Transmission, LLC By Team Leader - Well Eng & Tech Its James Amos Date

Print Name

Signature Date

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For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee	\$ 3.55
Extra Services & Fees (check box, add fees as appropriate)	
<input checked="" type="checkbox"/> Return Receipt (hardcopy)	\$ 3.85
<input type="checkbox"/> Return Receipt (electronic)	\$
<input type="checkbox"/> Certified Mail Restricted Delivery	\$
<input type="checkbox"/> Adult Signature Required	\$
<input type="checkbox"/> Adult Signature Restricted Delivery	\$
Postage	\$ 1.60
Total Postage and Fees	\$ 8.00
Sent To	COLUMBIA FOREST PRODUCTS
Street apt. Apt. No. or PO Box No.	PO Box 160
City, State, ZIP+4®	CRAIGSVILLE, WV 26205

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

USPS SANDYVILLE WV 25275 APR 23 2020

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47-039-0575W

WW-2A Coal Waiver

\* coal not operated

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha

Operator Columbia Gas Transmission, LLC

Operator's Well Number Coco C 7325

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0499 extension 1654

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WAIVER

The undersigned coal operator \_\_\_\_\_ / owner \_\_\_\_\_ / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

\_\_\_\_\_  
Signature

Date

Company  
Name  
By  
Its

\_\_\_\_\_  
Date

Signature

Date

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
James F. Brown, III, Trustee	United Fuel Gas Company	Lease No. 1002274-800	Bk. 137 / Pg. 1

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:  
By: Its:

James Amos   
 Columbia Gas Transmission, LLC  
 Team Leader - Well Engineering & Technology

WW-2B1  
(5-12)

Well No. Coco C 7325

West Virginia Department of Environmental Protection  
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name \_\_\_\_\_  
Sampling Contractor \_\_\_\_\_

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Well Operator Not applicable - existing underground natural gas storage well.

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Address \_\_\_\_\_  
\_\_\_\_\_

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Telephone \_\_\_\_\_  
\_\_\_\_\_

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Columbia Gas Transmission, LLC OP Code 307032

Watershed (HUC 10) Walnut Creek of the Elk River Quadrangle Blue Creek, WV

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No  TU - 4-17-20

If so, please describe anticipated pit waste: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? \_\_\_\_\_

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number 34-119-28776, 34-167-23862 )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Appalachian Water Services, Masontown, PA (permit 2608201))

Will closed loop system be used? If so, describe: Yes - steel piping connecting wellhead and tank(s).

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A - No drilling planned.

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? No drilling planned; fresh water, polymer, starch, LCM, surfactant, iron control (for clean-out and frac)

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A - No drilling planned.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) \_\_\_\_\_

-Landfill or offsite name/permit number? If needed: Rumpke Beech Hollow Landfill - Wellston, OH

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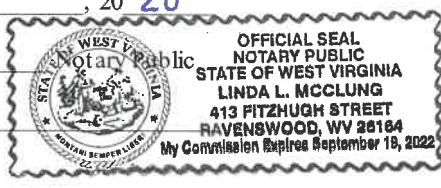
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected to any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature [Signature]  
Company Official (Typed Name) James Amos  
Company Official Title Team Leader - Well Engineering & Technology

Subscribed and sworn before me this 14th day of April, 20 20  
Linda L. McClung  
My commission expires 9-19-2022



Proposed Revegetation Treatment: Acres Disturbed 0.5 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 10-10-10

Fertilizer amount 600 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Rye	40	Orchard Grass and/or Tall Fescue	29
Hay or Straw	6000	Birdsfoot Trefoil (empire)	9
		Annual Rye	12

For wetland areas: Annual Rye (40 lbs./acre) until indigenous plants re-establish cover.

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]  
Comments: \_\_\_\_\_

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Title: Inspector Dale AS Date: 4.17.20

Field Reviewed?  Yes  No

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
GROUNDWATER PROTECTION PLAN

Operator Name: Columbia Gas Transmission, LLC  
Watershed (HUC 10): Walnut Creek of the Elk River Quad: Blue Creek, WV  
Farm Name: James F. Brown No. 20

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment.  
  
Spills from construction equipment and well treatment fluids is the only source of contaminate to groundwater.

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

All construction and well servicing equipment will be monitored and inspected daily for leaks. Fluid pumping well service equipment will have secondary containment under all leak paths. Spill kits will be on site.

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Walnut Creek - 0.13 miles.  
13 miles from WHPA (Ripling Waters Campground).  
Within ZPC (WVAWC Kanawha Valley Dist.).

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4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No waste material will be used for deicing or fill material on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

During routine tailgate meetings groundwater protection will be a topic of discussion.

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8. Provide provisions and frequency for inspections of all GPP elements and equipment.

No fertilizer will be stored on site. Small quantities of fuel, oil, and lubrications will be stored on site, but located within secondary containment. Construction and well servicing equipment will be monitored and inspected daily for leaks or spill.

Signature: 

Date: 4/1/20



**From:** Carr, Brian A (DHHR)  
**To:** [Brad Nelson](#)  
**Subject:** [EXTERNAL] data request  
**Date:** Wednesday, March 18, 2020 11:50:15 AM

This letter is in response to the informational request dated March 17, 2020 concerning a Wellhead Protection Area Evaluation in Kanawha and Jackson Counties, WV.

Based on the current information, we have found that the Gas Storage wells do not intersect with public water sources but intersect Protection Areas.

Attached are two tables showing the public water sources/ intakes and protection areas closest /intersect to the locations.

<b>CLOSEST ACTIVE PUBLIC WATER</b>				
<b>Gas Storage Name</b>	<b>Distance</b>	<b>PWSID</b>	<b>Source</b>	<b>System Name</b>
Coco A well 7226	11 miles	WV3302016	Surface Water (SW)	WVAWC KANAWHA VALLEY DIST
Ripley well 7344	6 miles	WV3301810	Ground Water (GW)	RAVENSWOOD MUNICIPAL WATER WORKS
Coco C well 7325	13 miles	WV3302016	Surface Water (SW)	WVAWC KANAWHA VALLEY DIST

<b>PROTECTION AREAS</b>			
<b>Gas Storage Name</b>	<b>Distance</b>	<b>PWSID</b>	<b>System Name</b>
Coco A well 7226	15 miles from WHPA	WV9918017	RIPLING WATERS CAMPGROUND
	within ZPC	WV3302016	WVAWC KANAWHA VALLEY DIST
Ripley well 7344	5 miles from WHPA	WV3301810	RAVENSWOOD MUNICIPAL WATER WORKS
	4 miles from ZPC	WV3301811	RIPLEY CITY OF
Coco C well 7325	13 miles from WHPA	WV9918017	RIPLING WATERS CAMPGROUND
	within ZPC	WV3302016	WVAWC KANAWHA VALLEY DIST

Brian A. Carr, P.G. | Program Manager  
Office of Environmental Health Services  
Source Water Assessment & Protection  
350 Capitol Street, Room 313  
Charleston, West Virginia 25301  
Office 304.356.4298

Environmental Protection

### WV DEP Reclamation Plan - Site Detail

Coco C well 7325 (API 039-01575)

- BMP's and erosion control devices to be utilized per WV DEP guidelines and Columbia's WV Environmental Construction Standards
- Existing drainage, culverts, and road ditches to be maintained.
- Minor grading and surface material to be applied as needed.

### Legend

- Coco C - 07325
- Coco C 7325 Access Route
- Coco C 7325 LOD



47-039-01575W

Google Earth

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### WV DEP Reclamation Plan - Overview

Coco C well 7325 (API 039-01575)

- BMPs and erosion control devices to be utilized per WV DEP guidelines and Columbia's WV Environmental Construction Standards
- Existing drainage, culverts, and road ditches to be maintained.
- Minor grading and surface material to be applied as needed.

Youngs Bottom

Coco C 07325

Existing Access Road

#### Legend

- Coco C - 07325
- Coco C 7325 Access Route
- Coco C 7325 LOD

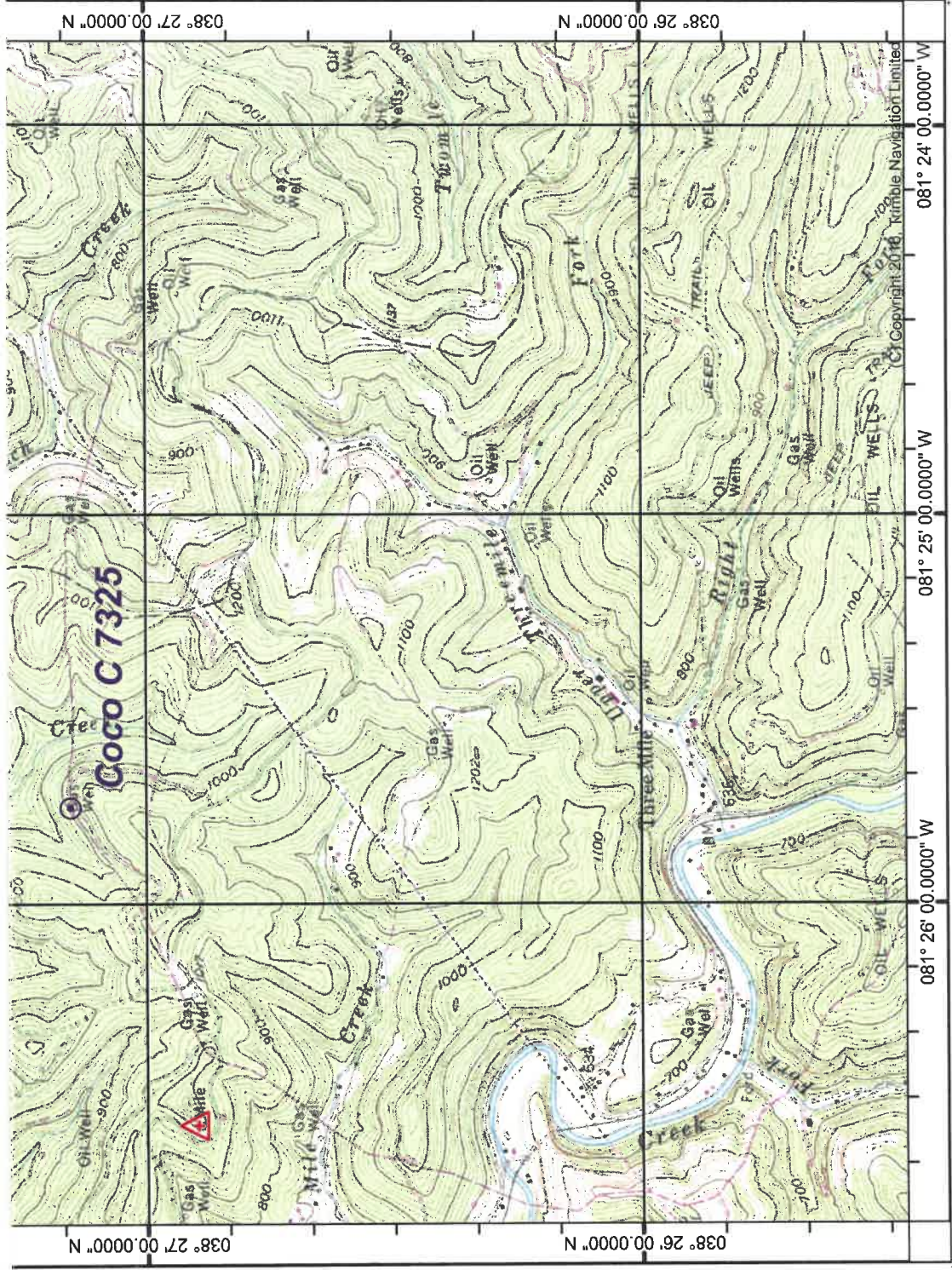
47-039-01575W

3000 ft

Google Earth

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47-039-01575W



038° 25' 27.4971\" N  
081° 26' 48.3231\" W

038° 25' 27.4971\" N  
081° 23' 48.4203\" W

Printed: Wed Apr 01, 2020

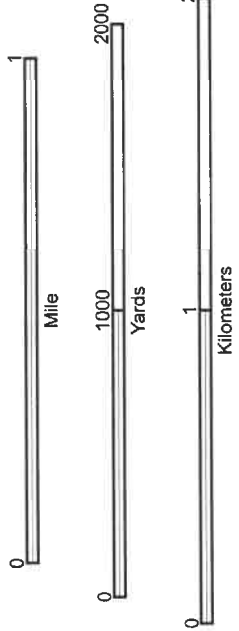
Copyright 2018, Trimble Navigation Limited

(CHARLESTON EAST)

(QUICK)

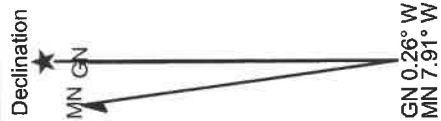
SCALE 1:24000

(MAMMOTH)

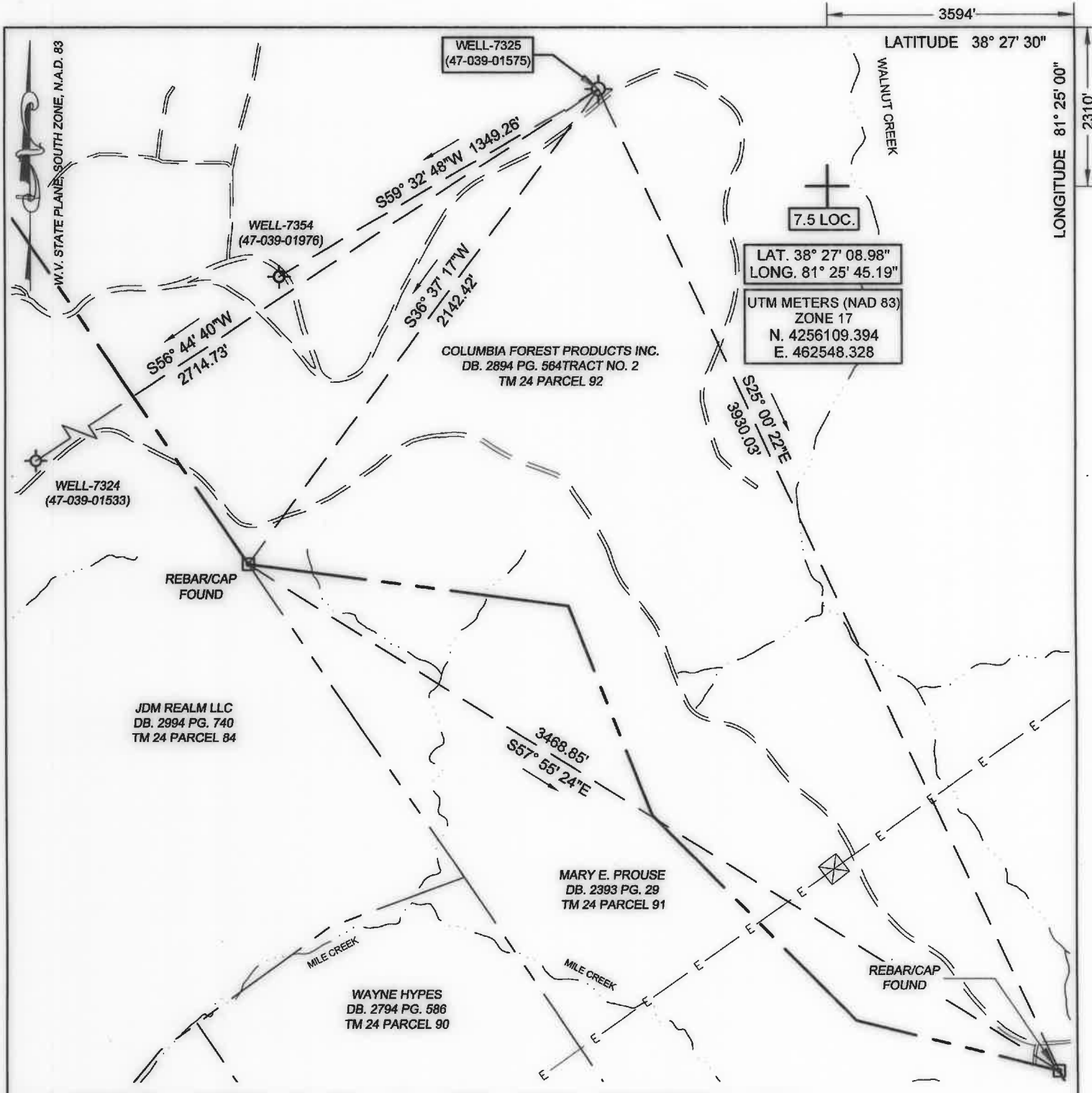


CONTOUR INTERVAL 20 FT

Produced by Trimble Terrain Navigator Pro  
 Topography based on USGS 1:24,000 Maps  
 North American 1983 Datum (NAD83)  
 To place on the predicted North American 1927 move the  
 projection lines 11M N and 14M E



38081-D3-TM-024  
 BLUE CREEK, WV  
 JAN 1, 1977



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

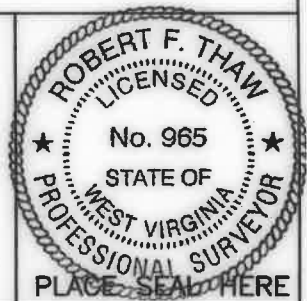
FILE No 1901-2345-001-005  
 DRAWING No. 1901-2345-001-005  
 SCALE 1"=400'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION TRIMBLE R10 GPS UNIT

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

(SIGNED)

ROBERT F. THAW

PS #965



STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 NITRO, WV



DATE FEBRUARY 20 2020  
 OPERATOR'S WELL No. 7325  
 API WELL No. 47 039 - 01575W

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  STATE 47 COUNTY 039 PERMIT 01575W  
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 899.4' WATER SHED WALNUT CREEK OF THE ELK RIVER  
 DISTRICT ELK COUNTY KANAWHA  
 QUADRANGLE BLUE CREEK, WV

SURFACE OWNER COLUMBIA FOREST PRODUCTS INC. ACREAGE 390  
 OIL & GAS ROYALTY OWNER JAMES F. BROWN LEASE ACREAGE 998  
 LEASE No. 1002274

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE   
 STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 5361  
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT JIM AMOS  
 ADDRESS PO BOX 1273, CHARLESTON, WV ADDRESS 48 COLUMBIA GAS ROAD  
25325-1273 SANDYVILLE, WV 25275

FORM IV-6 (8-78)

# WV DEP Office of Oil & Gas Permit Application Check-off

Well Coco C 7325

- 1. Survey plat
- 2. Surface owner name & address
- 3. Site Reclamation Plan
- 4. Topo map
- 5. Copy of old State Completion Report
- 6. Wellhead Protection Area Assessment
- 7. Application package prepared
- 8. Approved by State Inspector
- 9. Signed & notarized
- 10. Water Well Testing Reqr'mts  N/A - EXISTING WELL
  - Only required if drilling new well
- 11. Surface Owner Waiver 
  - Provide copy of entire permit application to surface owner
  - Include Certified Mail return receipt if mailed
- 12. Coal Operator Waiver  N/A - COAL NOT OPERATED
  - Only required if coal is currently mined/operated
  - Include Certified Mail return receipt if mailed
- 13. Coal Owner Waiver  N/A
  - Include Certified Mail return receipt if mailed
- 14. Sent to the State with Fee  (fee estimated @ \$ 900)
  - Ensure mylar copy of survey plat included
  - Include certified mail receipt if Surface Owner Waiver mailed
- 15. Emergency Evacuation Plan 
  - Only required if "Deep Well"

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CR # 051915  
Amt \$ 900  
Dg to 4/12/20

47-039-01575W



1700 MacCorkle Ave SE  
P.O. Box 1273  
Charleston, WV 25325

April 15, 2020

Columbia Forest Products, Inc  
P.O. Box 160  
Craigsville, WV 26205

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Columbia Gas Transmission, LLC is applying for a permit to the WV Department of Environmental Protection – Office of Oil and Gas, to work on an existing underground natural gas storage well located on property owned by you. As reference, the field and well ID is Coco C 7325 7344 (API 47-039-01575).

As part of the well permitting process, Columbia, the well operator, is required to provide a copy of all applicable permit application forms for your review and record retention.

Regards,

A handwritten signature in black ink that reads "Jim Amos". The signature is fluid and cursive, with the first and last names clearly legible.

Jim Amos  
Team Leader  
Well Engineering & Technology  
Columbia Gas Transmission, LLC