

west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Monday, April 23, 2018
WELL WORK PLUGGING PERMIT
Vertical Plugging

COLUMBIA GAS TRANSMISSION, LLC 1700 MACCORKLE AVENUE SE

CHARLESTON, WV 25314

Re: Permit approval for 7500 47-077-00056-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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: 7500

Farm Name: AYERSMAN, J.

U.S. WELL NUMBER: 47-077-00056-00-00

Vertical Plugging
Date Issued: 4/23/2018

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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

CONDITIONS

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. 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.
- 3. Well work activities shall not constitute a hazard to the safety of persons.

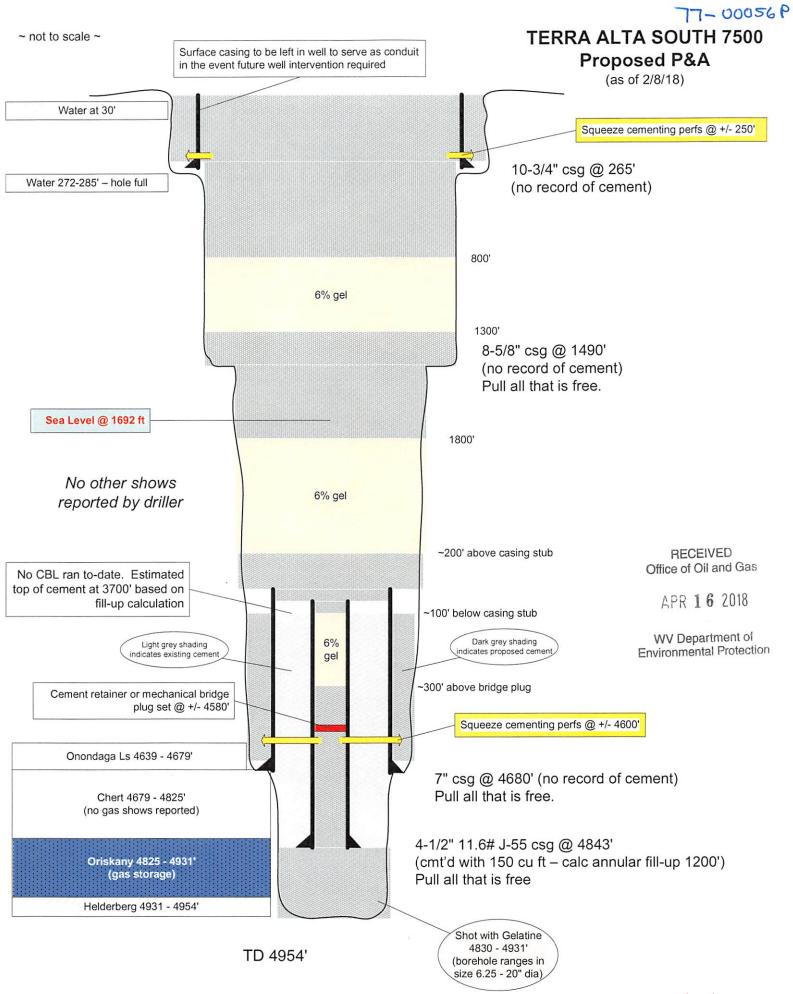
WW-4B Rev. 2/01

1) Date 3/16	, 2018
2) Operator's	
Well No. Terra Alta	South 7500
3) API Well No. 4	7 - 077 - 00056

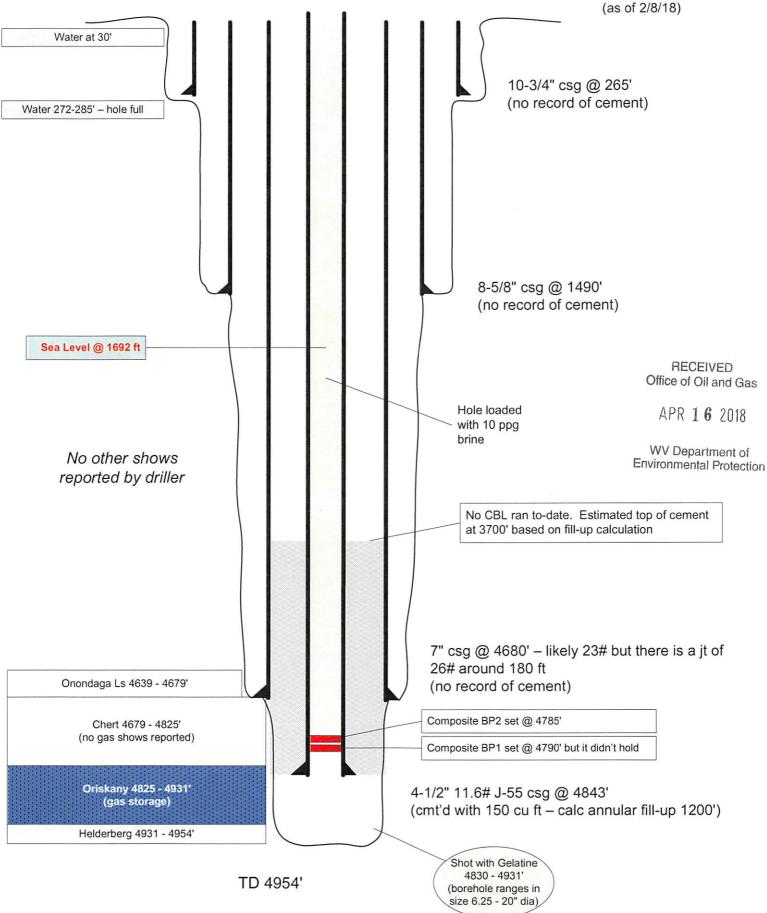
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

RECEIVED Office of Oil and Gas

		APR 1 6 2018
		AIT TO PLUG AND ABANDON
4)	Well Type: Oil/ Gas x/ Liquid	d injection/ Waste disposal WV Department of Environmental Protection
	(If "Gas, Production or Und	derground storage x) Deep x / Shallow
		16 1 D 10 W 1 O 1
5)		Watershed Kessinger Run of Saltlick Creek
	District Union	County Preston Quadrangle Terra Alta, WV
	Calumbia Can Transmission III C	Jamas Amas
6)	4700 14 0 11 1 05	7) Designated Agent James Amos
	Address 1700 MacCorkle Ave SE	Address 48 Columbia Gas Rd
	Charleston, WV 25325	Sandyville, WV 25275
0.1		O. P.L. Cantagarda
8)	1663 (1694) No. 10 1664 (1694)	9) Plugging Contractor
	Name Gayne Knitowski	Name Contractor Services Inc
	Address PO Box 108	Address 929 Charleston Rd
	Gormania, WV 26720	Spencer, WV 25276
	install cement retainer, and attempt/squeeze cemeretainer. Cut and pull all 4-1/2" and 7" casing the Gel to 1800' and install cement plug to 1540'.	install bottom cement plug 4630 - TD. Perforate 4600', ent behind 7" casing. Install cement plug and gel above eat is free. Install cement plugs across casing stubs. Pull all 8-5/8" casing that is free. Install cement plug
- 10 A		cement plug to 300'. Perforate 10-3/4" surface casing. Install cement plug across perforations to surface. to provide for well intervention in the future if needed. g must be made at a min.



TERRA ALTA SOUTH 7500 Prior to P&A





DEPARTMENT OF MINES OIL AND GAS DIVISION

Quadrangle Kngwood

WELL RECORD

€000 56 P

PRES-56 Gas Oil or Gas Well Company Union Gas Company Used in Drilling Left in Well Casing and Tubing Packers Address P. O. Drawer 351, Clarksburg, W. Va. Farm Joseph Ayersman Salt Lick Kind of Packer_ Elev. 1696 VA One District Union County Preston

The surface of tract is owned in fee by Joseph Ayersman 2651 2651 Size of 14901 14901 Terra Alta, W.Addes R. F. D. #3 <u> 4680 </u> 46801 Depth set_ Mineral rights are owned by Joseph Ayersman 6%. Address Same 5 8/16_ Perf. top_ April 15, 1953 Drilling commenced___ Drilling completed September 21, 1953 Perf. bottom_ Perf. top___ Date Shot October 19 nom 4830 To 4931 Liners Used. Perf. bottom. With 650 # of Gelatine /10ths Water in___ Open Flow CASING CEMENTED____SIZE_ /10ths Merc. in__ Volume 460,000 Rock Pressure 2180# INCHES COAL WAS ENCOUNTERED AT_ bbls., 1st 24 hrs. PEET. INCHES INCHES feet __inches INCHES feet feet. Salt water. Depth Found Oil, Gas or Water Remarks Hard or Soft Bottom Formation Color Top Soil 0 8 48 8 Lime Water 30 Slate & \$hells 48 140 Watch at 180 ft. depth as 210 Lime 26# joint of pipe mistakenly Slate & \$hells 230 210 Broken Lime 272 - 285 Hole Full 230 605 Slate & \$hells 605 1200 1380 1200 Lime Brown Benson 1380 1412 1455 2975 8 1/4 Lime 1412 Gas Pays
25/10 W 1/4#
30/10 W 1/2#
58/10 W 1#
70/10 # 1#
84/10 W 1# Slate & \$hells Brown Shale 3242 4830 to 483 Slate & Shells 3460 4841 to 484 4845 to 485 4877 to 488 Lime 3655 Brown Shale 3655 3705 Slate & Shells 3950 4897 to 490 3705 88/10 W 90/10 W 110/10 " 3950 Lime 4000° 4904 to 490 Slate & Shells **4000** 4173 4908 to 490 4918 to 492 Lime Tully 4205 Black Slate 4400 4205 **LLL00**: 4420 Lime RECEIVED Office of Oil and Gas Brown Shale 4420 4637 Brown Break 4637 4639 Onondaga Lime APR 16 2018 4639 4679 Chart 4679 4825 6 5/8 set 4680 4825 4931 Test: (Final) Oriskany WV Department of Environmental Protection 4931 25/10 Mercury 3/4" Helderberg Total Depth 4954 4/27/2018 DEPARTMENT OF MINES

WW-4A	
Revised	6-07

ell Number	
00	
	ell Number 00

3) API Well No.: 47 -

077 -

00056

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Ow	ner(s) to be served:	5) ((a) Coal Operator		
(a) Name	Jon A. Hooton	/	Name	not operated	
Address	PO Box 409		- Address		
	Kingwood, WV 26537	,			
(b) Name	Ronald D. Hooton		(b) Coal Own	er(s) with Declaration	
Address	PO Box 409		Name	.01(0) 11111 2 00101101011	
Tradroso	Kingwood, WV 26537		Address		
					RECEIVED Office of Oil and Gas
(c) Name	Jo Ann Hooton Frame		Name		Office of Oil and Case
Address			- Address		APR 16 2018
Hudress	PO Box 409		<u> </u>		APR 16 2018
- T	Kingwood, WV 26537		- // - //		
6) Inspector	Gayne Knitowski			ee with Declaration	WV Department of
Address	PO Box 108		_ Name		Environmental Protection
	Gormania, WV 26720		Address		
Telephone	304-546-8171				
The reason However, y Take notice accompany Protection, the Applica	you are not required to take a e that under Chapter 22-6 of ying documents for a permit with respect to the well at t	nts is that you have rig ny action at all. The West Virginia Cod to plug and abandon a v he location described on mailed by registered	this regarding the application, the undersigned well op- well with the Chief of the Control of the Application or certified mail or deliv	perator proposes to file or has file Office of Oil and Gas, West Virg and depicted on the attached Fo	ed this Notice and Application and inia Department of Environmental orm WW-6. Copies of this Notice, amed above (or by publication in
		Well Operator	Columbia Gas Transmis	sion, LLC	7
		By:	James Amos	Hann El	~~
	PUBLIC OFFICIAL SEAL	Its:	Senior Engineer		
7. 4. 15.49	AAEL D MCCLUNG t of West Victinia	Address	48 Columbia Gas Rd		
	ommission Expires		Sandyville, WV 25275		
	St Ravenswood, WV 26164	Telephone	304-373-2412		
Subscribed and	sworn before me th	is 23PD d	ay of	Notary Public	

Oil and Gas Privacy Notice

My Commission Expires

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory 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 deprivacyoffier@wv.gov.

API Number	47 -	077	_ 00056	
Operator's We	ell No	. Terra Alta	South 7500	

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

TEODS COTTINGS DISTOSAL & RECLAMATION TEAM
Operator Name Columbia Gas Transmission, LLC OP Code 307032
Watershed (HUC 10) Kessinger Run of Saltlick Creek Quadrangle Terra Alta, 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
If so, please describe anticipated pit waste: fresh water, cement returns, bentonite gel, NaCl salt
Will a synthetic liner be used in the pit? Yes No If so, what ml.?_20
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, Station W1 Ronco WTP, Masontown, PA - Permit 2608201
Will closed loop systembe used? If so, describe: no RECEIVED
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A Office of Oil and Gas
-If oil based, what type? Synthetic, petroleum, etc.
Additives to be used in drilling medium? APR 16 2018
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A WV Department of
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) subsoils
-Landfill or offsite name/permit number?
Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at 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 o btaining 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
Company Official (Typed Name) James E. Amos
Company Official Title Senior Engineer, Well Engineering & Technology
Subscribed and sworn before me this 23rd day of MATECH, 2018
Notary Public Notary Public OFFICIAL SEA. MICHAEL D MCCLUNG
My commission expires 6/19/22 State of West Virginia My Commission Expires 1 June 19, 2022
413 (1) 44/6/25/ 1/6/26 63/6 63, WV 26-

rom ww-9		Operator's Well No.	Terra Alta South 7500
Proposed Revegetation Tre	atment: Acres Disturbed 1.0	Prevegetation pH 6.5	
Lime 2	Tons/acre or to correct to pH	7	
Fertilizer type 10	-10-10		
Fertilizer amount_	600 lb	s/acre	
Mulch_2	Tons/a	acre	
	Seed	d Mixtures	
Т	`emporary	Permanent	Upland
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Rye	40	Orchard Grass and/or Tall F	escue 29
		Birdsfoot Trefoil (empire)	9
		Annual Rye	12
For wetland areas:	Annual Rve (40 lbs/acre	e) until indigenous plants re-es	tablish cover.
(L, W), and area in acres, o Photocopied section of invo Plan Approved by:	f the land application area. blved 7.5' topographic sheet.		
Comments:			RECEIVED Office of Oil and Gas
Reclaim	SITE ASAP		APR 1 6 2018
			WV Department of Environmental Protecti
Title: INSPOSTO	2)Yes (Date: 4/2/2005	

WW-9- GPP Rev. 5/16

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API Number 47 - 077	- 00056
Operator's Well No. Terra	Alta South 7500

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

Watershed (HUC 10): Kessinger Run of Saltlick Creek	Quad: Terra Alta, WV
Farm Name:_Ayersman, J.	
 List the procedures used for the treatment and discharge of flui groundwater. 	ds. Include a list of all operations that could contaminate the
No fertilizer will be stored on site. Small quantities site, but located within secondary containment.	s of fuel, oil, and lubrications will be stored on
Spills from construction equipment is the only sou	rce of contaminate to groundwater.
Describe procedures and equipment used to protect groundwater	er quality from the list of potential contaminant sources above.
All construction equipment will be inspected daily	for leaks. Spill kits will be on site.
 List the closest water body, distance to closest water body, a discharge area. 	and distance from closest Well Head Protection Area to the
discharge area.	
Kessinger Run is +/-100 ft from wellhead. The clowV3303908 Kingwood Water Board Primary. ReDepartment of Health and Human Resources, So	fer to enclosed assessment letter from
Kessinger Run is +/-100 ft from wellhead. The clowwv3303908 Kingwood Water Board Primary. Re	fer to enclosed assessment letter from
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5. Discuss any existing groundwater quality data for your facility or an adjacent property.

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Rev.	5/1	6

	Page	2	of	2
API Number 47	- 077	7-	00056	
Operator's Well N	NoTerra	Alta S	South 75	00

N/A
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.
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.
*
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 equipment will be inspected daily for leaks or spill.
RECEIVED Office of Oil and

Signature:

APR 16 2018

Date: 3/20

WV Department of Environmental Protection



STATE OF WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES

Bill J. Crouch **Cabinet Secretary**

Bureau for Public Health Office of Environmental Health Services

Rahul Gupta, MD, MPH, MBA, FACP Commissioner State Health Officer

February 16, 2018

William Timmermeyer TransCanada -Columbia Pipeline Group 1700 MacCorkle Ave., SE Charleston, WV 25314

> Re: WV DEP SWAP Info Request **Protection Areas for 8 wells** Randolph/Preston/Marshall Counties,

Dear Mr. Timmermeyer:

This is a response to the informational request dated February 15, 2018 concerning protection areas near eight wells.

Based on the current information, we have found the following:

Well	PA PWSID	PA Type	System Name	County	Note
Glady 7455	WV9942049	ZPC	USFS Middle Mountain Cabins HP	Randolph	Distance 1 mile, does not intersect any PA
Glady 7459	6 Z				Out of WV State
Terra Alta South 7500	WV3303908	ZPC	Kingwood Water Board Primary	Preston	Intersects Protection Area
Victory B 2265	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
	WV3304803	ZPC	Sistersville Municipal Water	Marshall	Intersects Protection Area
Victory B 2345	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
	WV3304803	ZPC	Sistersville Municipal Water	Marshall	Intersects Protection Area
Victory B 2589	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
Victory B 3522	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Intersects Protection Area
Victory B 4502	WV9925016	ZPC	Covestro (FKA Bayer Material)	Marshall	Distance 250 feet, does not intersect any PA

I hope the information provided helps you with the completion of your project. If you have any questions, please do not hesitate to contact me at (304) 356-4309.

Sincerely, Lisa A. King, GIS Administrator

Source Water Assessment and Protection

RECEIVED Office of Oil and Gas

APR 16 2018

CC: William J. Toome

WV Department of Environmental Protection





WV DEP Reclamation Plan Access Road

Terra Alta South well 7500

- Existing road surface and culverts to be maintained
- BMPs to be utilized per WV DEP guidelines

Driving Directions

Sa

From Aurora, WV

North on Rt 53/3 (Fox Rd)

Approx 1.3 miles turn left on to Rt 53 (Aurora Pike)
Approx 6.2 miles turn left on to Rt 106 (Bucklick Rd)

Approx 4.5 miles turn left on to Kinsinger Run Rd

Approx 0.2 miles well on left

Google Earth

© 2018 Google

51/2

The Grove-Chuler-Rd



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WV Department of Environmental Protection

TERRA ALTA QUADRANGLE WEST VIRGINIA TOPOGRAPHIC SERIES

(SANG RUN)

