



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

Harold D. Ward, Cabinet Secretary
www.dep.wv.gov

Tuesday, October 10, 2023
WELL WORK PERMIT
Vertical / Re-Work

COLUMBIA GAS TRANSMISSION, LLC
1700 MACCORKLE AVENUE SE

CHARLESTON, WV 25314

Re: Permit approval for LANHAM 7130
47-039-01058-00-00

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: LANHAM 7130
Farm Name: SELBE, CHARLES & EDNA
U.S. WELL NUMBER: 47-039-01058-00-00
Vertical Re-Work
Date Issued: 10/10/2023

Promoting a healthy environment.

10/13/2023

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.

CONDITIONS

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 within 30 days of commencement of drilling.

10/13/2023

WW - 2B
(Rev. 8/10)

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 Union Pocatalico, WV
Operator ID County District Quadrangle

2) Operator's Well Number: Lanham 7130 3) Elevation: 631.6

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

5) Proposed Target Formation(s): Big Lime Proposed Target Depth: 1487

6) Proposed Total Depth: 1487 Feet Formation at Proposed Total Depth: Big Lime

7) Approximate fresh water strata depths: 100' as reported by driller

8) Approximate salt water depths: 1015' as reported by driller

9) Approximate coal seam depths: None reported by driller

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

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

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Test/replace wellhead seals as needed, pull tubing, run HRVRT log, re-run tubing, spot 1000 gal 15% HCl acid


* casing and equipment listed below are existing

13) **CASING AND TUBING PROGRAM** * existing

TYPE	SPECIFICATIONS			FOOTAGE		INTERVALS	CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)	
Conductor	10.75 *		40.5	45	45		
Fresh Water	7 *	J-55	22	1449	1449		
Coal							
Intermediate							
Production	5.5 *	J-55	15.5	1466	1466	110 sx	
Tubing	2.375*	J-55	4.7	1453	1453		
Liners							

Packers: Kind: _____
Sizes: _____
Depths Set _____

Handwritten signature
10-5-23
RECEIVED
Office of Oil and Gas
SEP 12 2023
Department of Environmental Protection

WELL JOB PLAN			STS Well Engineering & Technology			PAGE 1	DATE JOB PREPARED: 4/21/2023
Objective: Baseline Integrity Project						LAST PROFILE UPDATE:	
TITLE: Pull tubing, log, rerun tubing, acid stimulate						WORK TYPE: Well Integrity	
FIELD: Lanham			WELL ID: 7130			LEASE #: 48205	
STATE: WV			SHL (Lat/ Long) 38.459708		-81.718955		API: 47-039-01058-0000
DIST/TWP: Union			BHL (Lat/Long) 38.459708		-81.718955		CNTY: Kanawaha
EXISTING TUBULAR CONFIGURATION		OD (inches)	WEIGHT (PPF)	GRADE	THREAD	DEPTH (ft)	
						TOP	BOTTOM
Conductor		10 3/4	40.5			0	45
Surface		7	22.0	J-55		0	1449
Intermediate							
Production							
Production		5 1/2	15.5	J-55		0	1466
Tubing		2 3/8	4.7	J-55		0	1453 *
* w/ Baker Model F profile nipple w/wireline entry.							
Perforations		Open Hole					
Wellhead		API 3K, 5-1/2" FS x 7", 2-3/8" 8rd wellhead connection. 8 5/8" casing welded to plate on 10 3/4" casing.					
D.H. EQUIPMENT			TYPE			DEPTH (ft)	
PACKER INFO:			Upper				
			Lower				
NIPPLE PROFILE INFO:			Upper				
			Lower				
SSSV INFO:							
CEMENT INFO							TOC (ft)
7							No record
5 1/2							Cemented with 110 sx. Records indicate cement to surface, see SBT comments below
							1029 good TOC
MISC INFORMATION							
REFER TO WELL SUMMARY RPT, WELLBORE DIAGRAM, ELOG, ETC. (see spreadsheet tabs below)							
Kill Fluid Calculation * Note that kill fluid calculation tabs are hidden							
Maximum calculated bottom-hole pressure (for reference only):				1036	psig	* input	
* Maximum storage field surface pressure (MAOP = 850 psi):				700	psig	* input	
** MAX FIELD PRESSURE FOR WORKOVER							
Well TD:				1487	ft TVD	* input	
Top of storage zone (Big Lime):				1439	ft TVD	* input	
Calculated maximum BH pressure at top of zone:				725	psig	* output Kill Fluid (TOZ)	
Kill fluid density at top of zone @:				150	psi OB	11.69	ppg * output Kill Fluid (TOZ)
Proposed depth of BP (n/a):				1439	ft TVD	* input	
Calculated maximum BH pressure at depth of BP:				725	psig	* output Kill Fluid (BP)	
Kill fluid density at depth of BP @:				150	psi OB	11.69	ppg * output Kill Fluid (BP)
Required minimum kill fluid density:				11.7	ppg	* greater of the two	
Current AOF:		12,386 MCF/D					
Top historical AOF:		68,119 MCF/D					
Last MVRT:		None available					
SBT:		Baker SBT_GR from 9.19.05 shows good cmt quality from bottom logged at 1433' to 1029, partial to 200, log not run to surface, likely strung out to surface.					
PROPOSED YEAR: 2024			ERCB PERMIT REQD: YES ___ NO ___			(Internal) PDS Required: YES ___ NO ___	
PREPARED BY: Maria Medvedeva			DT. APPLIED: ISSUED:			APPROVED: <input checked="" type="checkbox"/> Recoverable Signature	
PREP DATE: 4/21/2023			REVIEWED BY: James Amos			X 	

Refer to "Wellbore Diagram" tab

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 Environmental Protection

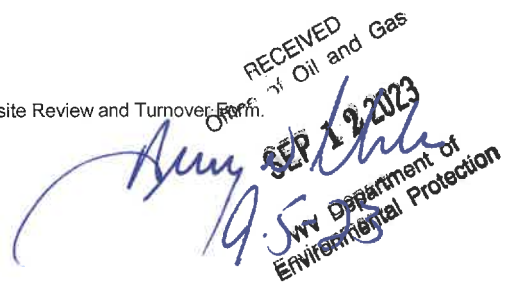
WELL JOB PLAN		STS Well Engineering & Technology		PAGE 2	DATE JOB PREPARED: 4/21/2023
Objective: Baseline Integrity Project				LAST PROFILE UPDATE:	
TITLE: Pull tubing, log, rerun tubing, acid stimulate		WELL: 7130		WORK TYPE: Well Integrity	
FIELD: Lanham					
STAT: WV	SHL (Lat/Long):	38.459708	-81.718955	API: 47-039-01058-0000	
TWP: Union	BHL (Lat/Long):	38.459708	-81.718955	CNTY: Kanawaha	

PROCEDURE

NOTE: Workover to be completed while field pressure is below 700 for well control and manageable KWF requirement.
 - Well deliverability has dropped off significantly. 2021 recommendation for a CTCO / stimulation noted in DataBase.
 - 4" side valve was reported leaking around the valve stem in 2021, re-energized stem packing.
 - Annulus pressure noted in 5-1/2" x 7" with 190 psi. Gas samples from flowstring and annulus are similar in composition suggesting storage gas source. Wellhead seals were repacked and pressure tested successfully end of 2022.

- 1 Obtain State Permit, EM&CP, pipeline crossing evaluation, call before you dig, etc. Prepare site specific SPCC.
- 2 Notify landowner.
- 3 Obtain General Work Permit and Wellsite Review & Turnover Form from Operations.
- 4 Notify Reservoir Engineering & Geosciences (REG) of intent to take well out of service.
- 5 Notify environmental inspector prior to beginning work. If required, notify State/Federal regulatory agencies prior to beginning work.
- 6 Disconnect well line.
- 7 Prepare access road and well site. Install ECD's per EM&CP.
- 8 Service all wellhead valves.
- 9 Document and report to WE&T the initial casing and annular pressures.
- 10 Pressure test wellhead seals to 1100 psig. If pressure test fails, will replace WH seals when well is isolated.
- 11 Kill well with a solids free brine system based on current field pressure (reference Kill Fluid Calculation section). Monitor well for 1-2 days to determine if well is static. If the well is not static, consult with the WE&T engineer for next steps (may need to pump an LCM pill).
- 12 MIRU service rig.
- 13 Remove tbg valve and bonnet. Spray/pour lubricant around top of tubing mandrel and around lock-down pins. Clean mandrel lift threads and verify thread profile. Screw into mandrel a temporary pup joint and valve for well control.
- 14 NU 7-1/16" 3M gate valve, Cameron double BOP (blind-shear in bottom / 2-3/8" pipes in top), and annular. Pressure test low (250psi) and high (1100 psi based on the maximum calculated BHP).
- 15 Unseat mandrel and pull 2-3/8" tubing. Keep hole full while tripping tubing out by circulating over the top of the well for well control.
- 16 Evaluate tubing condition, for tubing to be rerun back in the well.
- 17a MIRU Baker Atlas Logging. Run guage ring and HRVRT. RDMO loggers.
Request 1-day turnaround on HRVRT analysis. Condition of 5-1/2" casing will determine next steps. Consult with WE&T engineer before proceeding.
HIGH RESOLUTION VERTICAL LOG (360° CASING DEFECTS).
If wellhead seals failed pressure test in step 10 proceed to next steps, otherwise go to Step 21.
- 17b Install RBP1 (setting depth 1400' as correlated to Baker 09.19.2005 SBT). Perform pressure test to 500 psi. Install RBP2 ~300 ft above RBP1.
- 18 Blow down 5-1/2" x 7" annulus, remove BOPs, gate valve, and tubing spool.
- 19 Replace wellhead seals. Pressure test to 1100 psi.
- 20 RIH and retrieve RBPs. RDMO loggers.

- 21 Run tubing back in well with wireline re-entry guide, Otis 1.875 XN, ~4' pup joint, and Otis 1.875 X seating nipples on bottom. Space and land bottom of wireline re-entry guide as close to bottom of 5-1/2" casing as possible. Lock down tubing mandrel.
- 22 Remove BOPE and install remainder of wellhead - for well control either screw into mandrel a temporary pup jt and valve and strip over or have stabbing valve ready to install.
- 23 If an LCM pill was pumped to kill the well in step 11, spot and inject 1000 gal of 15% HCL treated with corrosion inhibitor, iron control / sequestering agent and surfactant into storage zone. Displace with freshwater treated with biocide and clay stabilizer.
Have liquid caustic on location to neutralize flowback fluids.
- 24 Swab / flow well to re-establish gas flow.
- 25 RDMO service rig.
- 26 Reconnect well line.
- 27 Notify WET Project Support that well is back in-service.
- 28 Reclaim R&L.
- 29 Commission well by completing, processing, and retain for records the Wellsite Review and Turnover Form.
- 30 Notify REG that well is ready for storage service.



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 Dept. of Oil and Gas
 SEP 12 2023
 Juv Department of
 Environmental Protection

PREPARED BY: Maria Medvedeva	REVIEWED BY: James Amos	APPROVED: Brent Criser
PREP DATE: 4/21/2023		

10/13/2023

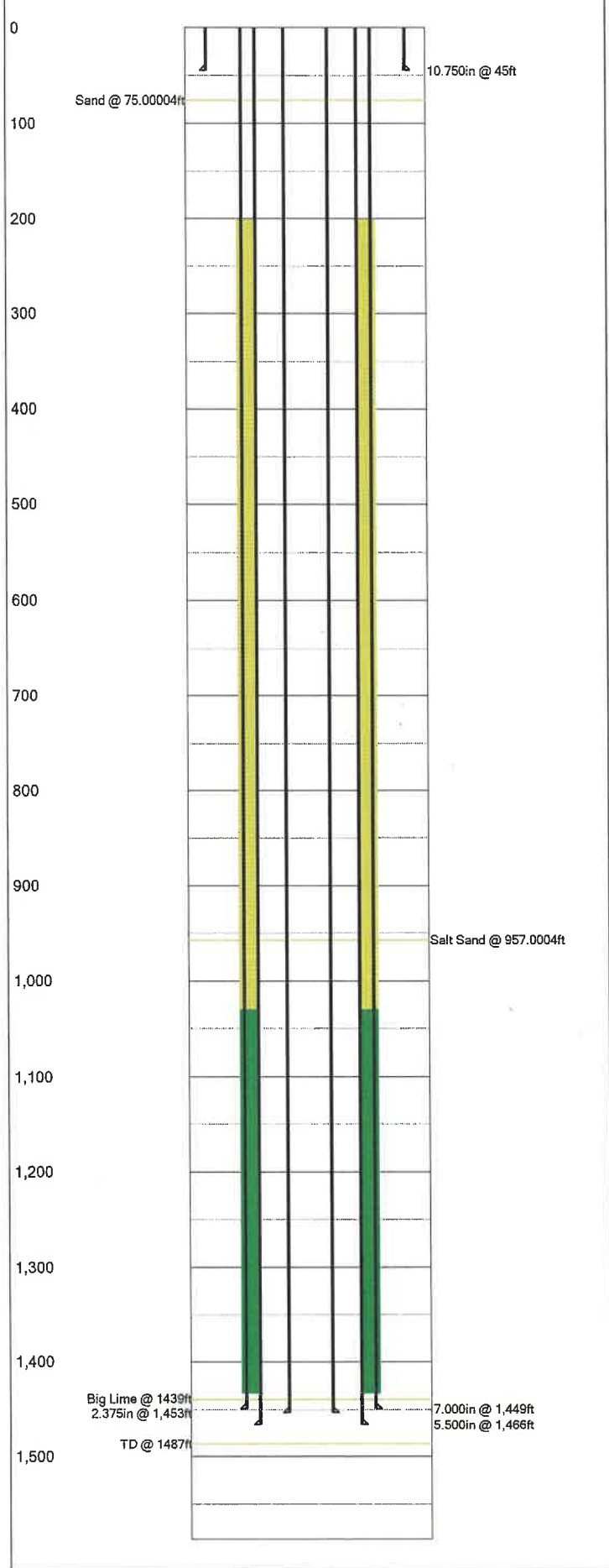
Last Updated: 2/24/2023 12:07 PM TransCanada

Field Name		Lease Name		Well No.	
Lanham		Lanham - 07130		07130	
County			State		API No.
Kanawha			WV		47039010580000
Version		Version Tag			
0		Current Completion			
G.L. (ft)	K.B. (ft)	Sec.	Township/Block		Range/Survey
1,487.0	1,487.0	56-65	Union		031007130
Operator			Well Status		Latitude
TransCanada			ACTIVE		38.4597
Longitude	-81.719				
Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From	
PropNum			Spud Date		Comp. Date
Gladys Harbert			10/1/1943		
Additional Information					
I-77 North to Tappers Creek exit. Go left off ramp to Rt 21 - North. Go 3 miles and turn left. Left on Rt 622 South 4.5 miles. Turn left up middle driveway. Well is on left in yard.					
Other1		Other2		Other3	
Lanham		0310		031007130	
Prepared By		Updated By		Last Updated	
				2/24/2023 12:07 PM	

Tubular Summary						
Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
10/1/1943	Casing	10.750			0	45
10/3/1943	Casing	7.000	22.00		0	1,449
7/2/1950	Casing	5.500	15.50		0	1,466
9/20/2005	Tubing	2.375	4.70	J-55	0	1,453

Casing Cement Summary						
C	Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	9/19/2005	0	5.500	200	1,029	Partial Quality
	9/19/2005	0	5.500	1,029	1,433	Good Quality

Formation Tops Summary		
Formation	Top (TVD ft)	Comments
Sand	75	Comments: w @ 100
Salt Sand	957	Comments: w @ 1015
Big Lime	1,439	Comments: g @ 1480-1485
TD	1,487	



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Office C
SEP 12 2023
WV Department of
Environmental Protection

I-2 7130
 P-18610

Annie S. Bias Lanham
 Columbian Carbon Co.
 Union District, Kanawha County
 Map Square 56-65
 Elevation 631.6 D F
 Commenced 9-23-43
 Completed 10-18-43

CASING

Size		
10 3/4"	44'6"	44'6" ✓
8 3/8"	182'7"	None ✓
7"	22"	None ✓
2 3/8" 1/2"	1491'3"	1491'3" ✓

Surface	0	15
Slate	15	75
Sand	75	110
Slate & Shells	110	175
Sand	175	260
Slate & Shells	260	355
Sand	355	435
Slate & Shells	435	470
Sand	470	575
Slate	575	597
Coal	597	600
Slate & Shells	600	957
Sand	957	1240
Slate	1240	1275
Sand	1275	1439SIN
Big Lime	1439SIN	1487
TOTAL DEPTH	1487'	

Fresh water 100' 6 BPH
 1015' HP

Big Lime Gas 1480-1485

Acidized with 1500 gals. acid volume 13,657 MCF
 7 1/2 hr. R. P. 4600

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I-2 - 7130
 P-18610

WW-2A
(Rev. 6-14)

1.) Date: 08/28/23
2.) Operator's Well Number Lanham 7130
State County Permit
3.) API Well No.: 47-039-01058

**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 Edna Marie. Joev. Deborah
Address Selbe
6 Mallard Ln
(b) Name Charleston, WV 25312
Address _____
(c) Name _____
Address _____
6) Inspector Terry Urban
Address PO Box 1207
Clendenin, WV 25045
Telephone 304-549-5915

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

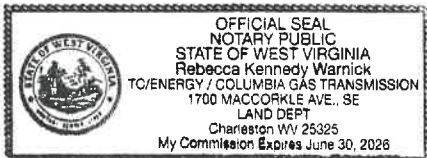
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

- Personal Service (Affidavit attached)
- X 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: Maria Medvedeva
Its: Senior Wells Engineer Storage Technical Services
Address: 1700 MacCorkle Ave SE
Charleston WV 25314-1273
Telephone: 304-410-4313
Email: maria_medvedeva@tcenergy.com

Subscribed and sworn before me this 29th day of August

Notary Public

My Commission Expires 6/30/26

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 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 depprivacyofficer@wv.gov

10/13/2023

4703901058W

Columbia Gas Transmission, LLC
1700 MacCorkle Ave., SE, Charleston, WV, USA 25314



August 31, 2023

Edna Marie, Joey and Deborah Selbe
6 Mallard Ln
Charleston, WV 25312

Columbia Gas Transmission, LLC is applying for a permit to the WV Department of Environmental Protection – Office of Oil and Gas, to workover an existing underground natural gas storage well located on property owned by you. As reference, the field and well ID is Lanham 7130 (API 47-039-01058).

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,

Maria Medvedeva
Senior Wells Engineer
Well Engineering & Technology
Columbia Gas Transmission, LLC

**U.S. Postal Service™
CERTIFIED MAIL® RECEIPT**
Domestic Mail Only

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

Charleston, WV 25312

OFFICIAL USE

Certified Mail Fee	\$4.35
Extra Services & Fees (check box, add fee as appropriate)	\$3.55
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$9.65
Total Postage and Fees	\$17.55

Sent To Selbe
Street and Apt. No., or PO Box No.
City, State, ZIP+4® WV 25312

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



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:
Edna Marie, Joey & Deborah Selbe
6 Mallard Ln
Charleston, WV 25312

9590 9402 7630 2122 5682 62
Number (Transfer from service label)
7022 2410 0002 6396 3034

COMPLETE THIS SECTION ON DELIVERY

A. Signature [Signature] Agent Addressee

B. Received by (Printed Name) [Name] C. Date of Delivery SEP 1 2023

D. Is delivery address different from item 1? Yes No
If YES, enter delivery address below: WV Department of Environmental Protection

3. Service Type

<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™
<input type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Signature Confirmation™
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Collect on Delivery Restricted Delivery	
<input type="checkbox"/> Insured Mail (over \$500)	
<input type="checkbox"/> Registered Mail Restricted Delivery (over \$500)	

www.tcenergy.com

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

10/13/2023

WW-2A Surface Waiver
(4/16)

SURFACE OWNER WAIVER

County Kanawha

Operator

Columbia Gas Transmission LLC

Operator well number

Lanham 7130

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:

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 law requires these materials to be served on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire 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.

RECEIVED
Office of Oil and Gas
SEP 12 2023
Department of Environmental Protection

Signature

Date

Company Name
By
Its

Signature

Date

Print Name

Signature

Date

10/13/2023

COAL OPERATOR, OWNER, OR LESSEE WAIVER

* coal not operated

County Kanawha

Operator Columbia Gas Transmission LLC

Operator's Well Number Lanham 7130

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 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

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

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Office of Oil and Gas
SEP 12 2023
WV Department of
Environmental Protection

10/13/2023

**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
D.F. and Zelda Milam	United Fuel Gas Company	Storage Lease - 1048205-000	123 / 376

**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:

Columbia Gas Transmission, LLC
Maria Medvedeva
Senior Wells Engineer Storage Technical Services

10/13/2023

N/A

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 _____

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

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WW-9
(5/16)

4703901058 W

API Number 47 - 039 - 01058
Operator's Well No. Lanham 7130

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) Dutch Fork of Pocatalico River Quadrangle Pocatalico, 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: N/A

Will a synthetic liner be used in the pit? Yes No If so, what ml.? N/A

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number 34-167-23862)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Mud Master 64054; Reserve Environmental Services (WMGR 123SW008)
Appalachian Water Services (WMGR 123SW001))

Will closed loop system be used? If so, describe: yes - steel flow line to tanks

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Fresh water

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

Additives to be used in drilling medium? NaCl, biocide, soda ash, polymer, starch, CaCO3, HCl acid

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-Landfill or offsite name/permit number? To be managed by Waste Management and US Ecology for disposal at permitted landfill

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 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.

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SEP 12 2023
WV Department of
Environmental Protection

Company Official Signature [Signature]

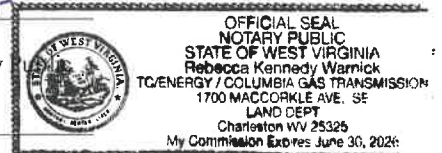
Company Official (Typed Name) Maria Medvedeva

Company Official Title Senior Wells Engineer Storage Technical Services

Subscribed and sworn before me this 29th day of August, 2023, 20

[Signature] Notary

My commission expires 6/30/24



10/13/2023

Proposed Revegetation Treatment: Acres Disturbed < 1.0 Prevegetation pH 6-7

Lime 2 Tons/acre or to correct to pH 7-8

Fertilizer type 10-10-10

Fertilizer amount 600 lbs/acre

Mulch hay or straw @ 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
		Birdsfoot Trefoil (Empire)	9
		Annual Rye	12

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:

[Handwritten Signature]

Comments

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Office of Oil and Gas
SEP 12 2023
WV Department of
Environmental Protection

Title:

Inspector Del E Gas

Date:

9-5-23

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): Dutch Fork of Pocatalico River Quad: Pocatalico, WV
Farm Name: Gladys Harbert

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

No fluids planned to be discharged. No fertilizer will be stored on site. Fuel, oil, and lubricants will be stored on site, but located within secondary containment. Accidental spills from construction equipment, well treatment fluids, and produced well fluids are the only possible source of contamination to groundwater. Drilling and flowback fluids to be stored in tanks. All accumulated fluids to be hauled off site to UIC disposal facility.

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. Tanks to be monitored daily for leaks. 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.

Dutch Fork is at a distance of 0.02 miles N.

The Rippling Waters Campground WV9918017 is the closest Well Head Protection Area at a distance of 9.66 miles NW from discharge area.

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

N/A

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SEP 12 2023
WV Department of
Environmental Protection

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

10/13/2023

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 and JSA meetings groundwater protection will be a topic of discussion.

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

No fertilizer will be stored on site. Fuel, oil, and lubricants will be stored on site, but located within secondary containment. Spills from construction equipment, well treatment fluids, and produced well fluids are the only possible source of contamination to groundwater.

All construction and well servicing equipment will be monitored and inspected daily for leaks or spills.

Signature: _____



Date: _____

08/28/2023

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SEP 12 2023
WV Department of
Environmental Protection

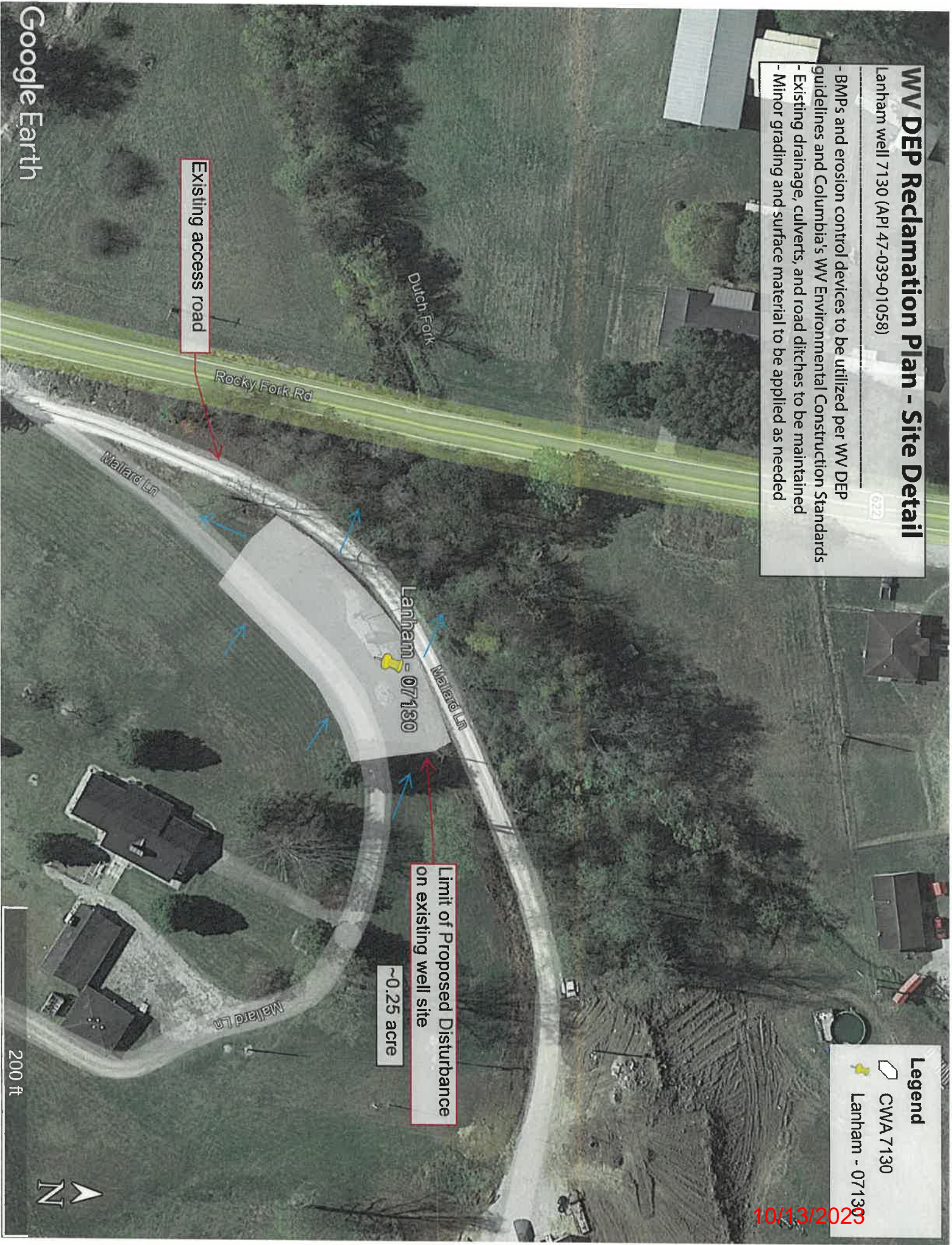
10/13/2023

WV DEP Reclamation Plan - Site Detail

Lanham well 7130 (API 47-039-01058)

6322

- 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



Legend

- CWA 7130
- Lanham - 07130

10/13/2023

4703901058 W

WV DEP Reclamation Plan - Overview

Lanham well 7130 (API 47-039-01058)

- 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



Legend
 Lanham - 07130

10/13/2023

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 Oil and Gas
 Environmental Protection

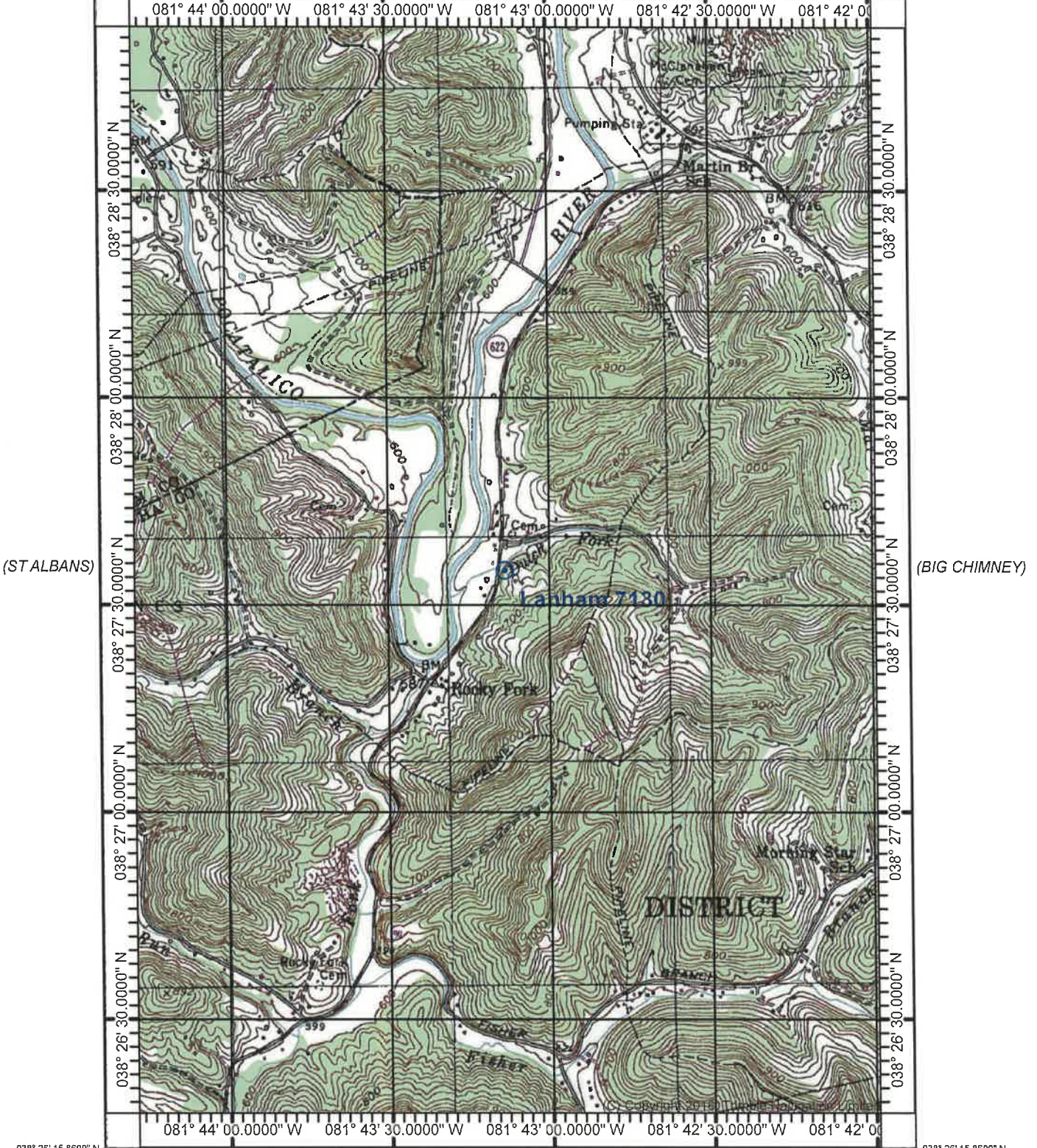
Google Earth

4703901058W

(BANCROFT) 

POCATALICO QUADRANGLE
WEST VIRGINIA
TOPOGRAPHIC SERIES (ROMANCE)

081° 44' 17.2245" W (SISSONVILLE) 081° 41' 58.7347" W
038° 28' 53.5990" N 038° 28' 53.5990" N



038° 26' 15.8699" N 081° 44' 17.2245" W (CHARLESTON WEST) SCALE 1:24000 (CHARLESTON EAST) 038° 26' 15.8699" N 081° 41' 58.7347" W

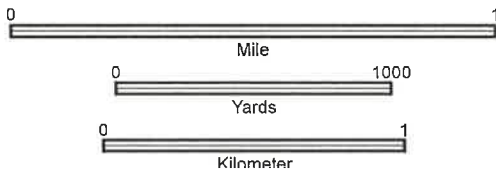
(ALUM CREEK)

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 10M N and
13M E

Declination



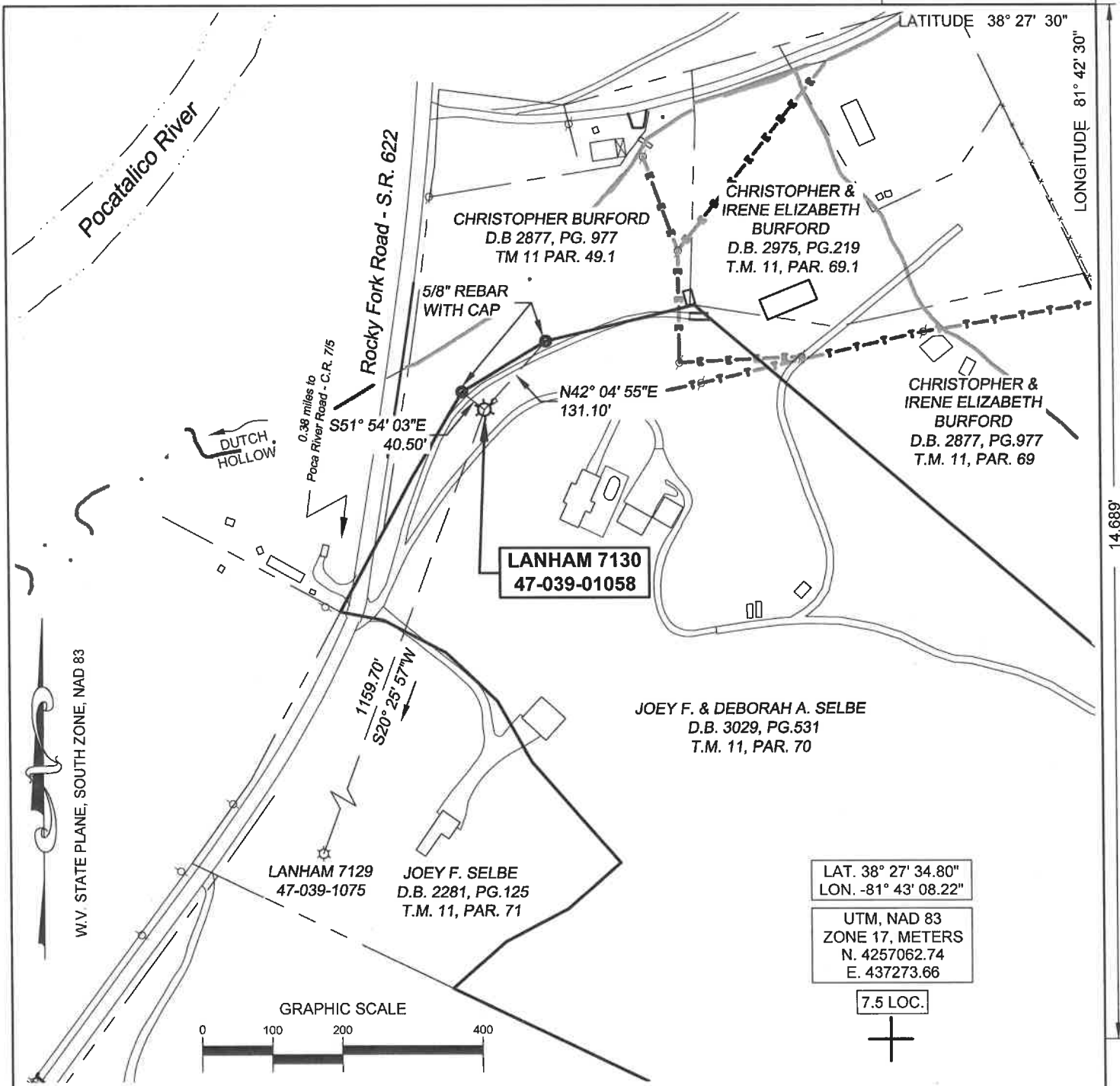
CONTOUR INTERVAL 20 FT

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Office of Oil and Gas
SEP 12 2023
POCATALICO, WV
N 1, 1999

WV Department of Environmental Protection
10/13/2023

4703901058W

3,040'



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

FILE No. 2301-2345-001-001
 DRAWING No. LANHAM - 7130
 SCALE 1 INCH = 200 FEET
 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) *R. Thaw*
ROBERT F. THAW PS #965



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



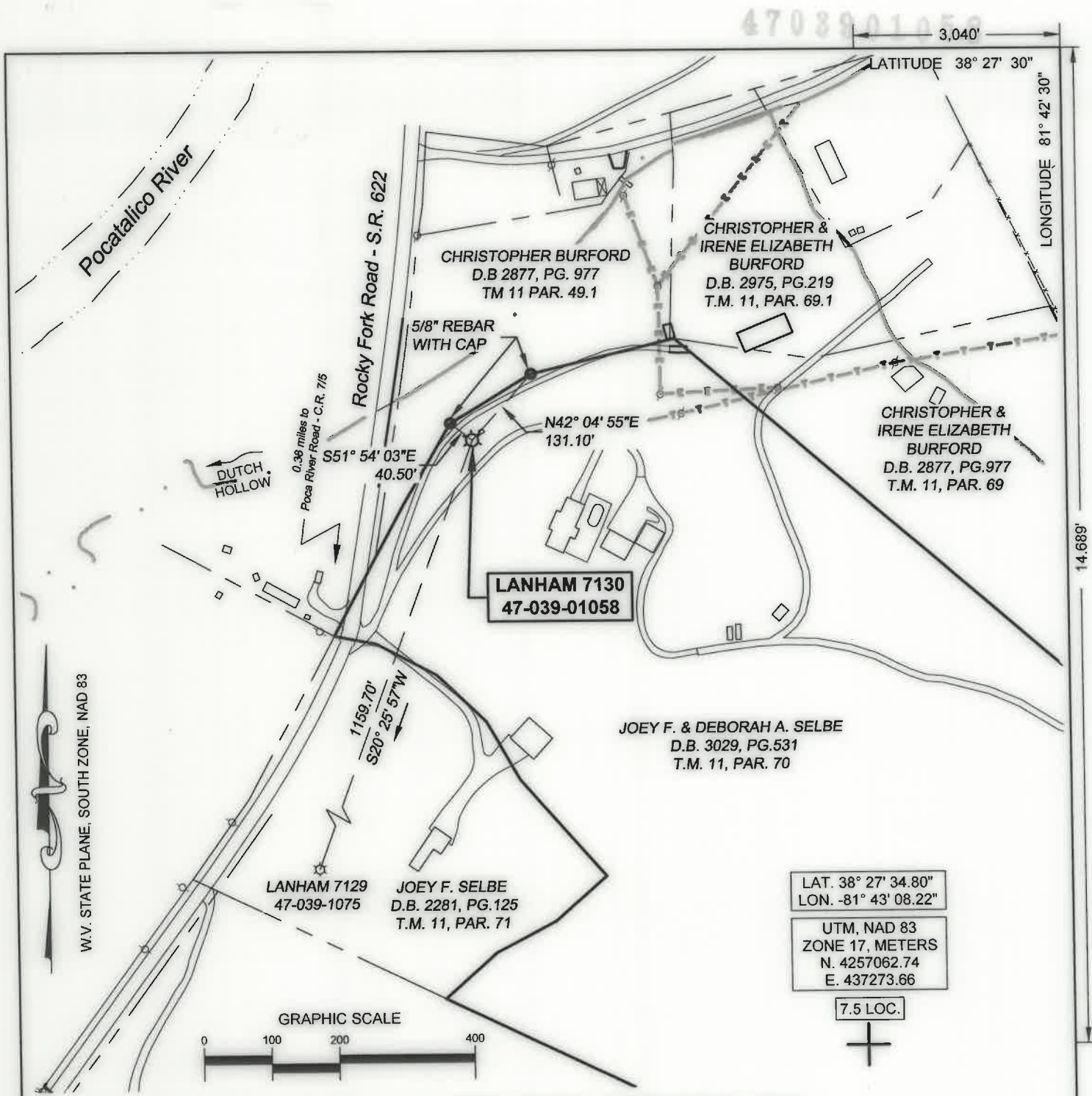
DATE AUGUST 8 2023
 OPERATOR'S WELL No. 7130
 API WELL No.

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 631.60' WATER SHED DUTCH FORK OF POCATALICO RIVER
 DISTRICT UNION COUNTY KANAWHA
 QUADRANGLE POCATALICO, WV

SURFACE OWNER JOEY F. & DEBORAH A. SELBE ACREAGE 24.8 AC. (DEED)
 OIL & GAS ROYALTY OWNER COLUMBIA GAS TRANSMISSION CORP.
 LEASE ACREAGE 48 ACRES LEASE NO. 1048205-000

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION 10/13/2023
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION BIG LIME ESTIMATED DEPTH 1487
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT MARIA MEDVEDEVA
 ADDRESS PO BOX 1273, CHARLESTON, WV 25325-1273 ADDRESS 1700 MACCORKLE AVE, S.E. CHARLESTON, WV 25314

FORM IV-6 (8-78)



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

FILE No. 2301-2345-001-001
 DRAWING No. LANHAM - 7130
 SCALE 1 INCH = 200 FEET
 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) [Signature]
ROBERT F. THAW PS #965



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

DATE AUGUST 8 2023
 OPERATOR'S WELL No. 7130
 API WELL No. 47 039 01058w

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE COUNTY PERMIT
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 631.60' WATER SHED DUTCH FORK OF POCATALICO RIVER
 DISTRICT UNION COUNTY KANAWHA
 QUADRANGLE POCATALICO, WV

SURFACE OWNER JOEY F. & DEBORAH A. SELBE ACREAGE 24.8 AC. (DEED)
 OIL & GAS ROYALTY OWNER COLUMBIA GAS TRANSMISSION CORP.
 LEASE ACREAGE 48 ACRES LEASE NO. 1048205-000

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE 10/13/2023
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION BIG LIME ESTIMATED DEPTH 1487
 WELL OPERATOR COLUMBIA GAS TRANSMISSION, LLC DESIGNATED AGENT MARIA MEDVEDEVA
 ADDRESS PO BOX 1273, CHARLESTON, WV ADDRESS 1700 MACCORKLE AVE, S.E.
25325-1273 CHARLESTON, WV 25314

FORM IV-6 (8-78)

4703901058W

Columbia Gas Transmission, LLC
1700 MacCorkle Ave., SE, Charleston, WV, USA 25314



September 11, 2023

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

✓ k# 43070
\$ 900.00
9/11/23

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

Lanham 7130 (API 47-039-01058)

Please email to address below, and return hardcopies of permits to:

Columbia Gas Transmission
1700 MacCorkle Ave SE
Charleston, WV 25314
Attn: Maria Medvedeva

If you have questions, feel free to call.

Regards,

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

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Office of Oil and Gas
SEP 12 2023
WV Department of
Environmental Protection

www.tcenergy.com

10/13/2023