



---

west virginia department of environmental protection

---

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Thursday, September 16, 2021  
WELL WORK PERMIT  
Vertical / Re-Work

EASTERN GAS TRANSMISSION AND STORAGE, INC  
925 WHITE OAKS BOULEVARD  
BRIDGEPORT, WV 26330

Re: Permit approval for 8411  
47-041-02362-00-00

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.

A handwritten signature in blue ink, appearing to read 'James A. Martin', is positioned above the printed name and title.

James A. Martin  
Chief

Operator's Well Number: 8411  
Farm Name: GARRETT, EDWARD EARL  
U.S. WELL NUMBER: 47-041-02362-00-00  
Vertical Re-Work  
Date Issued: 9/16/2021

## 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](mailto:DEPOOGNotify@wv.gov) within 30 days of commencement of drilling.

47-041-02362W  
CK# 330726  
Amount: \$550.00  
Date: 8/16/21

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

1) Well Operator: Eastern Gas Transmission and Storage, Inc.      307048      Lewis      Freemans Creek      Big Isaac  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: 8411      3) Elevation: 1191

4) Well Type: (a) Oil \_\_\_\_\_ or Gas X  
(b) If Gas: Production X / Underground Storage \_\_\_\_\_  
Deep \_\_\_\_\_ / Shallow X      SDW 8/13/2021

5) Proposed Target Formation(s): Gantz      Proposed Target Depth: 1982

6) Proposed Total Depth: 4656 Feet      Formation at Proposed Total Depth: Benson

7) Approximate fresh water strata depths: \_\_\_\_\_

8) Approximate salt water depths: \_\_\_\_\_

9) Approximate coal seam depths: 170-175'

10) Approximate void depths,(coal, Karst, other): NA

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)  
See attached work plan CONVERT FROM DUAL PURPOSE TO OBSERVATION ONLY WELL.  
RECEIVED Office of Oil and Gas AUG 20 2021  
WV Department of Environmental Protection

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor						
Fresh Water	7"			1717'	1717'	Existing
Coal						
Intermediate	5-1/2"			2707'	2707'	Existing
Production	3-1/2"			4656'	4656'	Existing
Tubing	1-1/2"			4539'	4539'	Existing
Liners						

Packers: Kind: \_\_\_\_\_  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

09/17/2021

## 8411 Work Plan

1. MIRU service rig and ancillary equipment.
2. Pull 1.5" tubing and rods.
3. MU working valve to the 3.5 tubing
4. MIRU wireline and run integrity logs on 3.5" tubing
5. MU BOP to valve and spool to working valve assembly
6. TIH to TD with tricone bit and clean out wellbore.
7. TOH with bit, make up mule shoe and TIH to 4656.
8. RU Cementers and pump balanced plug from 4656 to 2060' in 500' increments
9. Wash off cement top at 2060' and TOH to 1000'
10. Wait on cement
11. TIH and tag cement top. If below 2060', pump balanced plug from cement top to 2060'
- ★ 12. MIRU wireline, perforate 2050'
13. Pump kill weight fluid down the 3.5 tubing and up the 3.5X 5.5 annulus to load the annulus
14. Take off 5.5" casing head, and slip over 5.5" x 7-1/16" 3M companion flange, MU to spec.
15. NU spool and BOP to the companion flange.
16. PU spear and pull 5000' over string weight into 3.5"
17. TIH with cutters, and cut 3.5" at 2050'
18. TOH with cutters, prepare to pull free 3.5" tubing, while maintaining circulation on 3.5" annulus
19. Pull free 3.5" tubing. Swab well dry for integrity logging.
20. MIRU wireline. Run integrity logs of 5.5"
21. TIH and set RBP at 1800'. Test ~~RBP~~ RBP
22. Set second RBP at 900'. Test ~~RBP~~ RBP
23. RDMO service rig and equipment.
24. MIRU top joint crew
25. Replace top joints of casing and put new 7 X 11 3M wellhead on well
26. Install 5.5X11 head and install slips
27. Install 7-1/16" tree and pressure test wellhead assembly

★ Alex Worley assures TOC of 3 1/2" casing is 2060' JWH 9/6/2021

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
WV Department of  
Environmental Protection

SOW  
8/3/2021

09/17/2021

4704102362w

WR-35

API # 47-041-2362D

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: E. E. Garrett

Operator Well No.: 8411

LOCATION: Elevation: 1192      Quadrangle: Big Issac

District: Freemans Creek      County: Lewis  
Latitude: 10,700 Feet South of 39 Des.10 Min. 00 Ser.  
Longitude 4,760 Feet West of 80 Des.30 Min. 00 Sec.

445 WEST MAIN ST  
CLARKSBURG, WV

Asent: GLENN A. KNEPPER

Inspector: Stephen Casey  
Permit Issued: 04/27/88  
Well work Commenced: 05/13/88  
Well work Completed: 06/14/88  
Verbal Flussing  
Permission granted on: n/a  
Rotary  Cable  Rig  
Total Depth (feet) 4717  
Fresh water depths (ft) n/a  
Salt water depths (ft) n/a  
Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 170-175

Casings & Tubing Size	Used in Drillings	Left in Well	Cement Fill Up Cu. Ft.
6 5/8"		1717	
5 1/2"	2707	2707	200 sks
3 1/2"	4655.7	4655.7	150 sks

RECEIVED  
Office of Oil and Gas

AUG 20 2021

WV Department of  
Environmental Protection

3305-3473  
4414-4420  
4544-4551

OPEN FLOW DATA

Producing formation Benson, Riley, Balltown Pay zone depth (ft) 4544-4551  
 Gas: Initial open flow NT MCF/d Oil: Initial open flow NT Bbl/d  
 Final open flow 1100 MCF/d Final open flow NT Bbl/d  
 Time of open flow between initial and final tests NT Hours  
 Static rock Pressure 1400 psig (surface pressure) after 14 days XXXX Hours

Second producing formation \_\_\_\_\_ 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.

For: CNG TRANSMISSION CORP.

By: *[Signature]*  
Date: February 6, 1989      09/17/2021

Perforate Benson 4546-4551 with 15 holes; perforate Riley 4416-4419 with 6 holes. Total 21 holes - 0.36" diameter. Fracture with 500 gal. 15% acid, 600 bbl. water, 40,000 lb. sand and 30 lb. gel system.

Perforate Balltown 3416-3418, 3439-3443, 3458-3462 and 3466-3472 with 20 holes, 0.36" hole size. Fracture with 750 gal. 15% acid, 900 bbl. water, 30 lb. gel system and 70,000 lb. sand.

Dunkard	540- 572
Big Dunkard	625- 670
Salt Sand	1002-1160
2nd Salt Sand	1170-1365
Injun	1693-1805
Squaw	1810-1825
Gantz	1980-2025
Fifty Foot	2172-2220
Gordon	2320-2340
Fifth	2479-2514
Speechley	3192-3206
Balltown	3305-3473
Riley	4414-4420
Benson	4544-4551
Total Depth	4717

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
WV Department of  
Environmental Protection

4704102362W

KENN III  
Q117132  
PP4210194

WR-35

API # 47-041-2362D

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: E. E. Garrett

Operator Well No.: 8411

LOCATION: Elevation: 1192

Quadrangle: Big Issac

District: Freemans Creek

County: Lewis

Latitude: 10,700 Feet South of 39 Des. 10 Min. 00

Longitude 4,760 Feet West of 80 Des. 30 Min. 00 Sec.

RECEIVED  
Division of Oil and Gas

AUG 20 2021

WV Department of  
Environmental Protection

445 WEST MAIN ST  
CLARKSBURG, WV

Asent: GLENN A. KNEPPER

Inspector: Stephen Casey

Permit Issued: 04/27/88

Well work Commenced: 05/13/88

Well work Completed: 06/14/88

Verbal Plussins

Permission granted on: n/a

Rotsrv X Cable Rig

Total Depth (feet) 4717

Fresh water depths (ft) n/a

Salt water depths (ft) n/a

Is coal being mined in area (Y/N)? N

Coal Depths (ft): 170-175

Size	Used in	Left	Cement
	Drilling	in Well	Fill Up
			Cu. Ft.
6 5/8"		1717	
5 1/2"	2707	2707	200 sks
3 1/2"	4655.7	4655.7	150 sks

RECEIVED  
FEB 08 1989  
Division of Oil and Gas

OPEN FLOW DATA

Producing formation Benson, Riley, Balltown Pay zone depth (ft) 3305-3473  
 Gas: Initial open flow NT MCF/d Oil: Initial open flow NT Bbl/d  
 Final open flow 1100 MCF/d Final open flow NT Bbl/d  
 Time of open flow between initial and final tests NT Hours  
 Static rock Pressure 1400 Psid (surface pressure) after 14 days XXXX

Second producing formation \_\_\_\_\_ 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 \_\_\_\_\_ Psid (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.

For: CNG TRANSMISSION CORP.

By: *[Signature]*  
Date: February 6, 1989

09/17/2021

4704102362W

4704102362W

Perforate Benson 4546-4551 with 15 holes; perforate Riley 4416-4419 with 6 holes. Total 21 holes - 0.36" diameter. Fracture with 500 gal. 15% acid, 600 bbl. water, 40,000 lb. sand and 30 lb. gel system.

Perforate Balltown 3416-3418, 3439-3443, 3458-3462 and 3466-3472 with 20 holes, 0.36" hole size. Fracture with 750 gal. 15% acid, 900 bbl. water, 30 lb. gel system and 70,000 lb. sand.

Dunkard	540- 572
Big Dunkard	625- 670
Salt Sand	1002-1160
2nd Salt Sand	1170-1365
Injun	1693-1805
Squaw	1810-1825
Gantz	1980-2025
Fifty Foot	2172-2220
Gordon	2320-2340
Fifth	2479-2514
Speechley	3192-3206
Balltown	3305-3473
Riley	4414-4420
Benson	4544-4551

Total Depth 4717

**RECEIVED**  
FEB 08 1989

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

RECEIVED  
Office of Oil and Gas

AUG 20 2021

WV Department of  
Environmental Protection

6873

09/17/2021



4704102862W

IV-35  
(Rev 8-81)

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date April 6, 1988  
Operator's  
Well No. 8411  
Farm W. T. Highland  
API No. 47-041-2362

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow \_\_\_ /)

LOCATION: Elevation: 1192' Watershed Hog Camp Run  
District: Freemans Creek County Lewis Quadrangle Big Isaac

COMPANY CNG Transmission Corp.  
ADDRESS 445 W. Main St., Clarksburg, WV  
DESIGNATED AGENT Glenn A. Knepper  
ADDRESS 445 W. Main St., Clarksburg, WV  
SURFACE OWNER Edward Earl Garrett  
ADDRESS Rt. 1, Weston, WV 26452  
MINERAL RIGHTS OWNER Guy R. Brown  
ADDRESS Rt. 3, Salem, WV 26426  
OIL AND GAS INSPECTOR FOR THIS WORK Stephen Casey  
ADDRESS Rt. 2, Box 232-D, Jane Lew, WV 26378  
PERMIT ISSUED none  
DRILLING COMMENCED June 17, 1916  
DRILLING COMPLETED August 26, 1916  
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	146	0	
9 5/8			
8 1/4			
8 5/8	1006	304	
6 5/8			
7 1/8	1717	1717	
2 3/16			
3 1/2	2221	2221	
4 1/2			
3			
2	2539	2539	
Liners used			

GEOLOGICAL TARGET FORMATION Fifty Foot & Fifth Depth see tops feet  
Depth of completed well 2539 feet Rotary \_\_\_ / Cable Tools Oil and Gas  
Water strata depth: Fresh none feet; Salt \_\_\_ feet  
Coal seam depths: 170-175 Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Fifty Foot Pay zone depth 2172-2220 feet  
Gas: Initial open flow n/a Mcf/d Oil: Initial open flow \_\_\_ Bbl/d  
Final open flow 2138 Mcf/d Final open flow \_\_\_ Bbl/d  
Time of open flow between initial and final tests n/a hours  
Static rock pressure 440 psig (surface measurement) after 2 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Fifty Foot & Fifth Pay zone depth see tops feet  
Gas: Initial open flow n/a Mcf/d Oil: Initial open flow \_\_\_ Bbl/d  
Final open flow 213 Mcf/d Oil: Final open flow \_\_\_ Bbl/d  
Time of open flow between initial and final tests n/a hours  
Static rock pressure 90 psig (surface measurement) after 2 hours shut in

AUG 20 2021  
Department of Environmental Protection

09/17/2021

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

August 8, 1922 - 60 quarts in Fifth

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Pittsburgh Coal			170	175	
Little Dunkard			540	572	
Big Dunkard			625	670	
First Salt			1002	1160	
Second Salt			1170	1365	
Injun			1693	1805	
Squaw			1810	1825	
Gantz			1980	2025	
Fifty Foot			2172	2220	
Gordon			2320	2340	
Fifth			2479	2514	
Total Depth				2539	

(Attach separate sheets as necessary)

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
WV Department of  
Environmental Protection

CNG Transmission Corp.  
Well Operator

By: *J. L. Swain* Manager of Production

Date: April 6, 1988

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."

09/17/2021

4704102362W

WW-2A  
(Rev. 6-14)

1). Date: 8/2/21  
2.) Operator's Well Number 8411  
State County Permit  
3.) API Well No.: 47- 041 - 02362

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 Edward Garrett  
Address 2151 Rush Run Road  
Weston, WV 26378  
(b) Name Bruce Garrett  
Address 1326 Freemans Creek Road  
Camden, WV 26338  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone \_\_\_\_\_

5) (a) Coal Operator  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Western Pocahontas Properties LP  
Address 5260 Irwin Rd.  
Huntington, WV 25705  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

OR  
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)

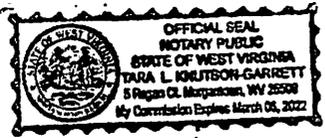
X Certified Mail (Postmarked postal receipt attached)  
Publication (Notice of Publication attached)

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 Eastern Gas Transmission and Storage, Inc.  
By: John Love  
Its: Director of Storage  
Address: 925 White Oaks Blvd.  
Bridgeport, WV 26330  
Telephone: 681-842-3311  
Email: John.love@bheats.com



Subscribed and sworn before me this 3 day of August, EGTS

Tara Knutson-Garrett Notary Public  
My Commission Expires March 10, 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 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

08/02/2021

7019 0700 0000 5255 5572

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

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

**OFFICIAL USE**

Certified Mail Fee  
 \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage  
 \$ \_\_\_\_\_

Total Postage and Fees  
 \$ \_\_\_\_\_

Sent To *Western Peabank Properties LP*  
 Street and Apt. No., or PO Box No.  
*5260 Irwin Rd*  
 City, State, ZIP+4®  
*Huntington, WV 25705*

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

Postmark Here

7019 0700 0000 5255 5596

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

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

**OFFICIAL USE**

Certified Mail Fee  
 \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage  
 \$ \_\_\_\_\_

Total Postage and Fees  
 \$ \_\_\_\_\_

Sent To *Bruce Gareth*  
 Street and Apt. No., or PO Box No.  
*1326 Freemans Creek Rd*  
 City, State, ZIP+4®  
*Condon, WV 26338*

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

Postmark Here

7019 0700 0000 5255 5589

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

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

**OFFICIAL USE**

Certified Mail Fee  
 \$ \_\_\_\_\_

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ \_\_\_\_\_

Return Receipt (electronic) \$ \_\_\_\_\_

Certified Mail Restricted Delivery \$ \_\_\_\_\_

Adult Signature Required \$ \_\_\_\_\_

Adult Signature Restricted Delivery \$ \_\_\_\_\_

Postage  
 \$ \_\_\_\_\_

Total Postage and Fees  
 \$ \_\_\_\_\_

Sent To *Edward Gareth*  
 Street and Apt. No., or PO Box No.  
*2151 Rush Run Rd*  
 City, State, ZIP+4®  
*Weston, WV 26378*

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

Postmark Here

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
WV Department of Environmental Protection

SURFACE OWNER WAIVER

County Lewis

Operator EGTS  
Operator well number 8411

**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 57<sup>th</sup> 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

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

Company Name \_\_\_\_\_  
By \_\_\_\_\_  
Its \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
BY A CORPORATION, ETC.  
WV Department of  
Environmental Protection

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Lewis  
Operator Eastern Gas Transmission and Storage, Inc. Operator's Well Number 8411

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

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 \_\_\_\_\_

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
WV Department of  
Environmental Protection

**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
W.T Highland et al	Reserve Gas Company See attached merger exhibit	1/8	63/333

**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

RECEIVED  
Office of Oil and Gas

AUG 20 2021

WV Department of  
Environmental Protection

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:

John Love

Eastern Gas Transmission and Storage, Inc.

Director of Storage

WW-2A1 – Exhibit A

- Reserve Gas Company merged with Hope Natural Gas Company on 12-30-1939
- Hope Natural Gas Company merged with New York State Natural Gas Corporation on April 4, 1965. On the same date, Hope Natural Gas Company changed its name to Consolidated Gas Supply Corporation.
- On January 1, 1984, Consolidated Gas Supply Corporation assigned its leasehold interest to Consolidated Gas Transmission Corporation.
- On January 1, 1998, Consolidated Gas Transmission Corporation changed name to CNG Transmission Corporation.
- As a result of a merger with Dominion Resources, Inc., CNG Transmission Corporation changed name to Dominion Transmission, Inc on May 3, 2000.
- On August 1, 2017, Dominion Transmission, Inc. changed name to Dominion Energy Transmission, Inc.
- As a result of merger with Berkshire Hathaway Energy, Inc., Dominion Energy Transmission, Inc. changed name to Eastern Gas Transmission and Storage, Inc. on November 1, 2020.

RECEIVED  
Office of Oil and Gas

AUG 20 2021

WV Department of  
Environmental Protection

09/17/2021

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

Operator Name Eastern Gas Transmission and Storage, Inc. OP Code 307048

Watershed (HUC 10) Hogcamp Run Quadrangle Big Isaac

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: \_\_\_\_\_

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 \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

SDW  
8/3/2021

Will closed loop system be used? If so, describe: Yes, Open top and closed top tanks will be utilized for storing all well fluids

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

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

Additives to be used in drilling medium? NA

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. NA

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

-Landfill or offsite name/permit number? NA

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.

RECEIVED  
Office of Oil and Gas  
AUG 20 2021  
WV Department of Environmental Protection

Company Official Signature \_\_\_\_\_

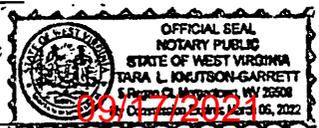
Company Official (Typed Name) John Love

Company Official Title Director of Storage

Subscribed and sworn before me this 3rd day of August, 2021

Tara Knutson-Ganett Notary Public

My commission expires March 6, 2022



Proposed Revegetation Treatment: Acres Disturbed +/- 1.00 Prevegetation pH \_\_\_\_\_

Lime pH Test \_\_\_\_\_ Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type	lbs/acre
<u>Timothy - 4</u>	
<u>Orchard Grass - 12</u>	
<u>White Clover - 3</u>	

Seed Type	lbs/acre
<u>Timothy - 4</u>	
<u>Orchard Grass - 12</u>	
<u>White Clover - 3</u>	

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: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RECEIVED  
Office of Oil and Gas

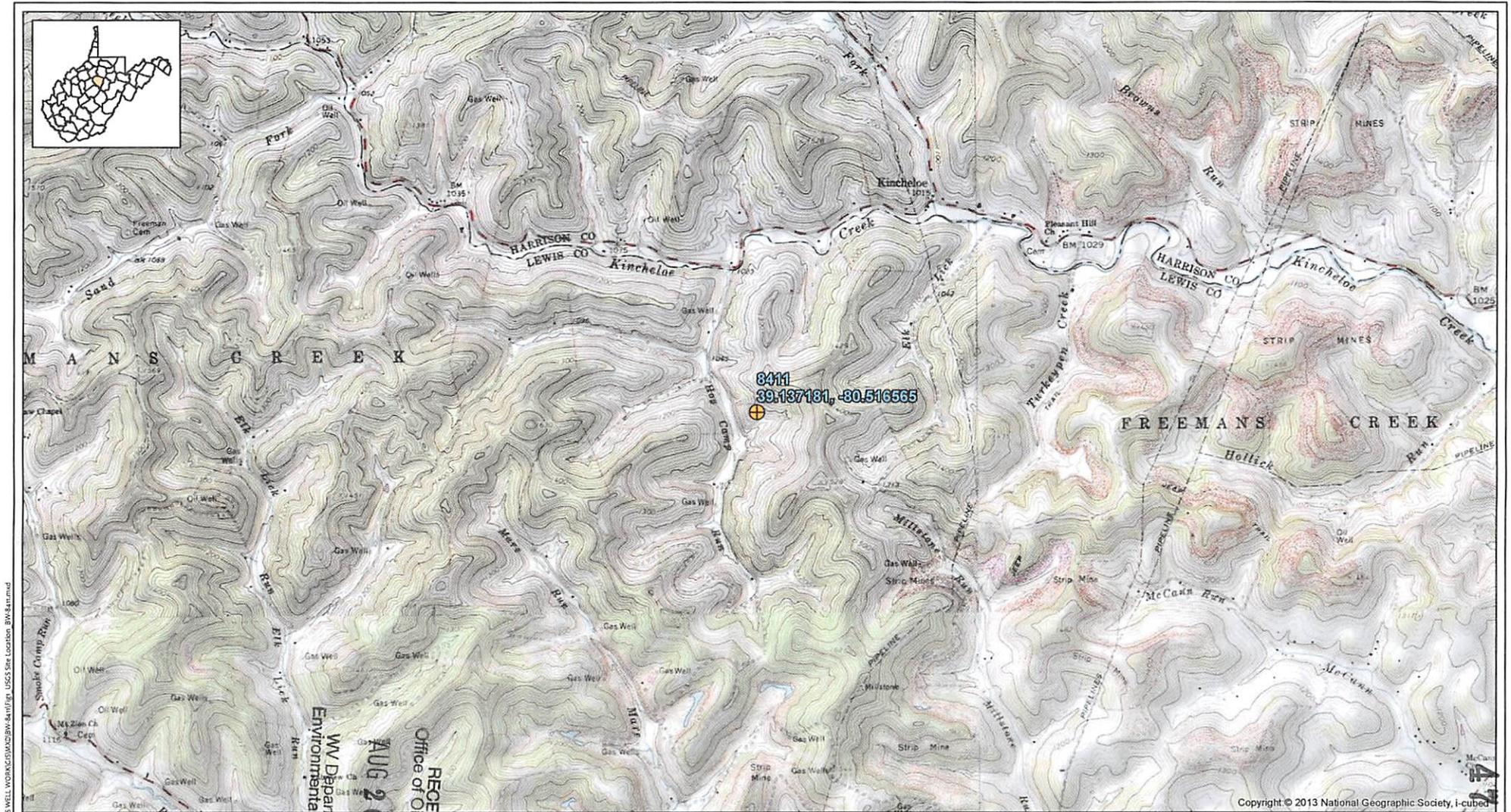
AUG 20 2021

WV Department of  
Environmental Protection

Title: OOG Inspector

Date: 8/3/2021

Field Reviewed?  Yes  No



Document Path: R:\2021\07\13\2021-08-11\EGIS Well\WORKING\DWG\DWG\_UGS Site Location\_8411.dwg

RECEIVED  
 Office of Oil and Gas  
 AUG 20 2021  
 WV Department of Environmental Protection

Copyright © 2013 National Geographic Society, i-cubed

	<b>DETAILS:</b>	8411 Well	<b>Legend</b>	1 inch = 2,000 feet 	Figure 1: USGS Site Location 8411 Well Project Lewis County - West Virginia
	Quad: Big Isaac Drawn By: tspear Date: 7/3/2021 Surveyed By: XX/XX Date: MM/DD/YYYY Project No. 070-10307 Sheet Number: USGS				

DISCLAIMER: The information contained herein is the sole property of The Thrasher Group, Inc. Reproduction of these documents in whole or in part, for any reason without prior written permission, is strictly prohibited. Copyright (C) 2021 THE THRASHER GROUP, INC.

4104102362W

4704102362W

FORM WW-6

LATITUDE 39° 10' 00"

4,699'

**EASTERN GAS TRANSMISSION & STORAGE INC.**  
WELL NO. 8411

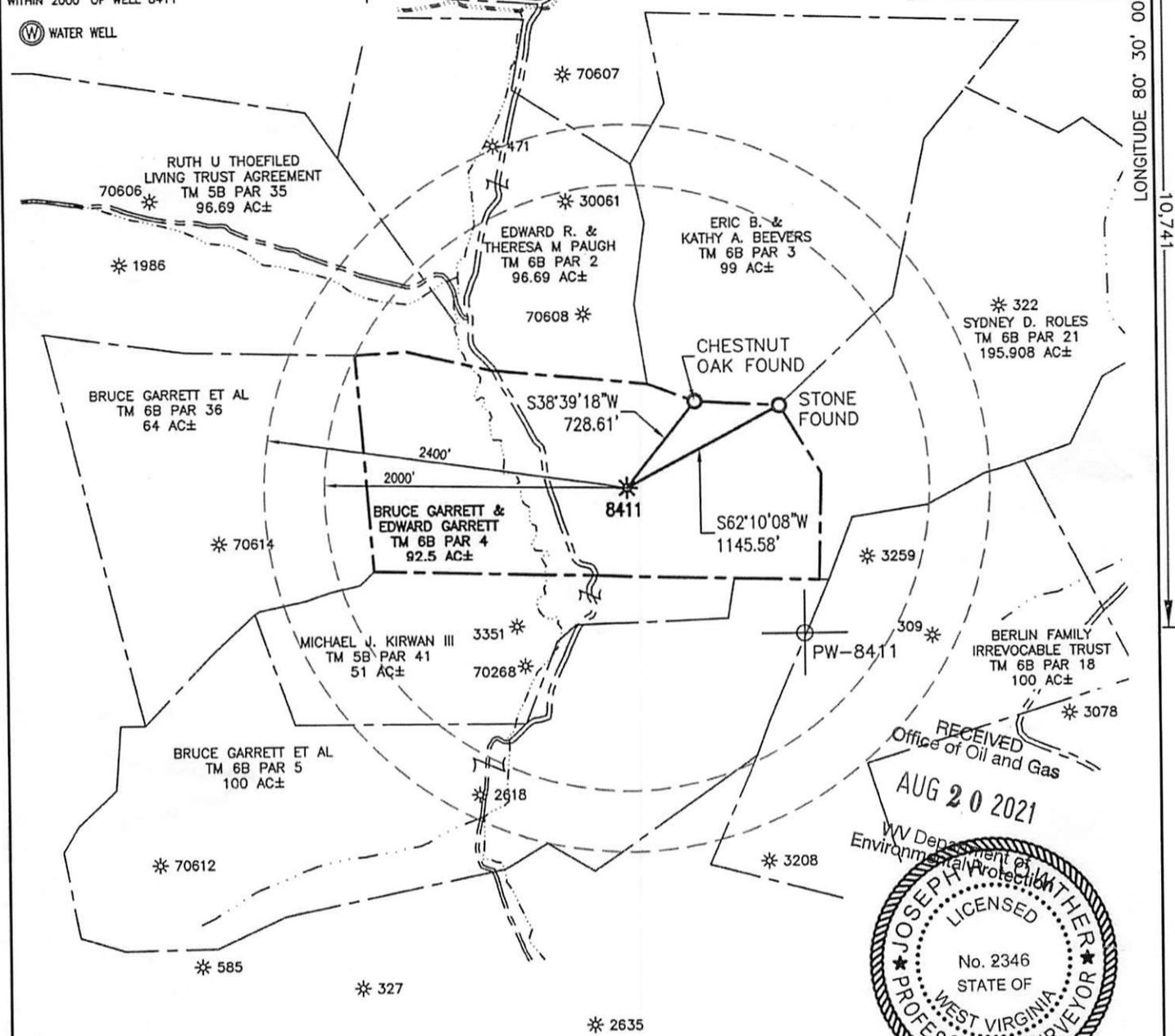
WELL NO. PW-8411  
UTM 17-NAD 83(M)  
(NAD 83 NORTH ZONE)  
N: 4332111.120  
E: 541780.628

STATE PLANE COORDINATES  
(NAD 83 SOUTH ZONE)  
N: 778633.3650  
E: 2105637.9440

NOTES:  
-PLAT ORIENTATION, CORNERS, AND WELL REFERENCES ARE BASED UPON THE GRID NORTH MERIDIAN FOR THE WV STATE PLANE COORDINATE SYSTEM, SOUTH ZONE NAD 83.

-THERE APPEARS TO BE NO WATER WELLS LOCATED WITHIN 2000' OF WELL 8411

WATER WELL



JOSEPH L. LOWTHER P.S. 2346

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.

FILE NO. <u>2362</u>	 STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL & GAS	DATE <u>AUGUST 4</u> , 2021
SCALE: <u>1"=1000'</u>		OPERATOR'S WELL NO. <u>8411</u>
MINIMUM DEGREE OF ACCURACY: <u>1 in 200</u>		API WELL NO.
PROVEN SOURCE OF ELEVATION: <u>DGPS (Submeter Mapping Grade)</u>		<u>47</u> - <u>041</u> - <u>02362</u> STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1191.10 WATER SHED: FREEMANS CREEK

DISTRICT: FREEMANS CREEK COUNTY: LEWIS

QUADRANGLE: BIG ISAAC 7.5' ACREAGE: 92.5

SURFACE OWNER: BRUCE GARRETT & EDWARD GARRETT LEASE ACREAGE: 171

OIL & GAS ROYALTY OWNER: EASTERN GAS TRANSMISSION & STORAGE INC. (FMR DOMINION ENERGY TRANS. INC.)  
CHRISTINE BLACK, KATHRYN HUGHES, MIKE ROSS INC., RANDALL L. HUGHES,  
SHELIA K. SHERMAN, WACO OIL & GAS CO. INC., LEASE NO. 53261  
WILLIAM J. BROWN

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

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_

TARGET FORMATION: BENSON ESTIMATED DEPTH: 4,717 TVD

WELL OPERATOR: EASTERN GAS TRANSMISSION & STORAGE INC. DESIGNATED AGENT: JOHN M. LOVE  
 ADDRESS: 925 WHITE OAKS BLVD. ADDRESS: 925 WHITE OAKS BLVD.  
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 26330

**THRASHER**  
THE THRASHER GROUP, INC.  
600 WHITE OAKS BLVD.  
BRIDGEPORT, WV 26330  
PHONE 304-624-4108  
**09/17/2021**



4704102362W

WV DEP Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304

To whom it may concern,

Please review this rework permit packet for Eastern Gas Transmission and Storage, Inc. well number 8411. This well is currently a production w/ storage observation well. The purpose of this rework is to rework the well for storage observation only of the Gantz Formation. Water source search was completed out to 2000' from the wellbore. No water sources were located within that distance of the well.

If you have any further questions or comments, please feel free to contact me by means of the information listed below.

Sincerely,

Alex Worley  
Gas Storage Engineer III  
Eastern Gas Transmission and Storage, Inc.  
304-203-6243  
[Alexander.worley@bhegts.com](mailto:Alexander.worley@bhegts.com)

RECEIVED  
Office of Oil and Gas

AUG 20 2021

WV Department of  
Environmental Protection

09/17/2021



Stansberry, Wade A &lt;wade.a.stansberry@wv.gov&gt;

---

**Re-Work Vertical Well Work Permit (API: 47-041-02362)**

1 message

**Stansberry, Wade A** <wade.a.stansberry@wv.gov>

Thu, Sep 16, 2021 at 11:17 AM

To: alexander.worley@bhegts.com, john.love@bhegts.com, "Ward, Samuel D" &lt;samuel.d.ward@wv.gov&gt;, John Breen &lt;jbreen@assessor.state.wv.us&gt;

I have attached a copy of the newly issued well [permit](#) number, "8411", API: (47-041-02362). This will serve as your copy.

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

**Wade A. Stansberry**

**Environmental Resource Specialist 3**

**West Virginia Department of Environmental Protection**

**Office of Oil & Gas**

**601 57th St. SE**

**Charleston, WV 25304**

**(304) 926-0499 ext. 41115**

**(304) 926-0452 fax**

**[Wade.A.Stansberry@wv.gov](mailto:Wade.A.Stansberry@wv.gov)**

---

**2 attachments**

 **47-041-02362 - Copy.pdf**  
3275K

 **IR-26 Blank.pdf**  
152K

**09/17/2021**