

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

Friday, January 24, 2020 WELL WORK PLUGGING PERMIT Coal Bed Methane Well Plugging

CNX GAS COMPANY LLC 1000 CONSOL ENERGY DR

CANONSBURG, PA 15370

Re:

Permit approval for L-59 47-061-01464-00-00

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: L-59

Farm Name: HAINES, NOAH & LORRAINE

U.S. WELL NUMBER: 47-061-01464-00-00

Coal Bed Methane Well Plugging

Date Issued: 1/24/2020

Promoting a healthy environment.



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. 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 ^{1/6}	, 20 20
2)Operator's	
Well No. L-59	
3) API Well No.	47 - 061 - 01464

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil/ Gas x/ Liqui	d injection/ Waste disposal/
(If "Gas, Production \times or Un	derground storage) Deep/ Shallow_x
5) Location: Elevation 1167	Watershed Dunkard Creek
District Battelle	County Monogalia Quadrangle Mannington
6) Well Operator CNX Gas Company LLC	7) Designated Agent Anthony Kendziora
6) Well Operator Address 1000 Consol Energy Dr.	Address 1000 Consol Energy Dr
Canonsburg, PA 15317	Canonsburg PA 15317
8) Oil and Gas Inspector to be notified Name Gayne Knitowski	9) Plugging Contractor Name Coastal Drilling East LLC
Address P.O. Box 108	Address 70 Gums springs road
Gormania, WV 26720	Morgantown WV 26508
	RECEIVED Office of Oil and Gas
	WV Department of Environmental Protection
Notification must be given to the district of work can commence.	il and gas inspector 24 hours before permitted
Work order approved by inspector Haml	Date 1/2/2020

API#: 47-061-01464 Well: L-59 (Haines)

County: Monongalia **District: Battelle**

Elevation: 1165'

L-59 Proposed Plugging and Abandonment Procedure

- 1. Run in and tag TD (~903') with wireline or small sandline tools. Confirm TD is inside slotted casing. (Make call to CNX if tagging high to come up with game plan)
- 2. Once TD has been reached in slotted casing proceed to fill slotted casing with pea gravel to 603'. (1 ton= ~20 Cu. Ft. fill)
- 3. Once pea gravel has been placed in slotted liner verify top of gravel is at or above top of slotted casing (603')
- 4. Once top of pea gravel has been verified TIH with tubing and prepare to cement
- 5. Place 50' cement plug (603'-553') on top of pea gravel
- 6. TOOH with cement string
- 7. Rig up wireline and tag cement plug at 553'
- 8. TOOH and prepare to run Bond Log on 5 ½" casing if Bond Log tool will go to bottom
- 9. Run Bond Log from top of cement to surface to verify casing is cemented to surface. If cement top if found to not be at surface notify CNX and prepare to pull uncemented casing
- 10. If cement on 5 $\frac{1}{2}$ " is at surface or once uncemented has been pulled prepare to cement well to surface
- 11. TIH with work string to 630' and cement well to surface
- 12. TOOH w/ work string and top off well with cement
- 13. Install 6"x14' monument (10' below grade, 4' above grade). Monument must contain API#, Well Name, Company Name and Date Plugged

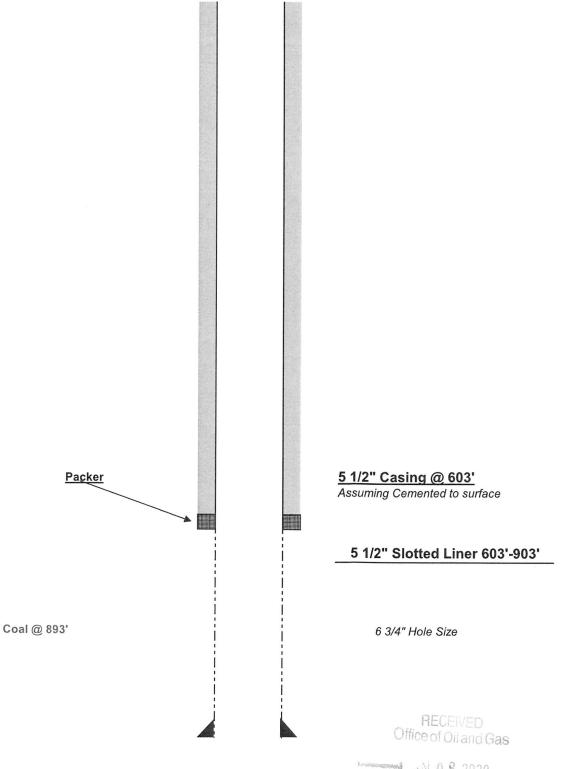
Note: All cement will be Class A. All spacers will be 6% gel

PSP PRECEIVED Office of Oil and Gas

WV Department of Environmental Protection

Haines L-59

Battelle District, Monongalia WV Original Completion: 4/1987 API #47-061-01464 Elevation = 1165'



TD @ 903'

-N 08 2020

WV Department of Environmental Pretection

Page 1 of 4

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

API <u>47</u> - 061 - 01464 Cour	Monongalia	_{District} Battelle	
Quad Mannington Pad	Name Haines L-59	Field/Pool Name	
Farm name Haines, Noah & Lorraine		Well Number L-59	
Operator (as registered with the OOG) CNX O	Sas Company LLC		
Address 1000 Consol Energy Drive	A 1	State PA	Zip 15317
Top hole Northing Landing Point of Curve Northing	ch an as-drilled plat, profile view	w, and deviation survey Easting 556171.29 Easting Easting	
Elevation (ft) 1165 GL T	ype of Well □New ■ Existing		
Permit Type Deviated Horizontal	□ Horizontal 6A ■ Verti	cal Depth Type	Deep Shallow
Type of Operation □ Convert □ Deepen		• ••	Stimulate
Well Type □ Brine Disposal ■ CBM □ Gas	□ Oil □ Secondary Recovery	□ Solution Mining □ Stora	ge [] Other
Type of Completion ■ Single □ Multiple Drilled with □ Cable ■ Rotary			Other
Drilling Media Surface hole ■ Air □ Mud Production hole ■ Air □ Mud □ Fresh Wa Mud Type(s) and Additive(s)	□Fresh Water Intermed ater □ Brine	iate hole ■ Air □ Mud	□ Fresh Water □ Brine RECHARGE Office of On and Gas
		r.	2020 8 2020
	drilling commenced		
Date completion activities began			
Verbal plugging (Y/N) Date permi	ssion granted	Granted by	
Please note: Operator is required to submit a plu	gging application within 5 days	of verbal permission to plug	
Freshwater depth(s) ft	Open mine(s) (Y/	N) depths	
Salt water depth(s) ft		red (Y/N) depths	
Coal depth(s) ft893		tered (Y/N) depths	
Is coal being mined in area (Y/N)	N	· · •	
			Reviewed by:

Page 2 of 4 WR-35 Rev. 8/23/13 Farm name_Haines, Noah & Lorraine API 47-061 Well number L-59 01464 **CASING** Hole Casing Basket Did cement circulate (Y/N) New or Grade **STRINGS** * Provide details below* Size Size Used wt/ft Depth Depth(s) Conductor Surface Coal Intermediate 1 Intermediate 2 Intermediate 3 Production 6.75 5.5 903 Tubing Packer type and depth set Formation Packer @ 603 Comment Details CEMENT Class/Type Number Shurry Yield Volume Cement woc of Cement DATA of Sacks wt (ppg) (ft 3/sks) (fl^3) Top (MD) (hrs) Conductor Surface Coal Intermediate 1 Intermediate 2 Intermediate 3 Production Tubing Drillers TD (ft) 903 Loggers TD (ft) Deepest formation penetrated Pittsburgh Coal Seam Plug back to (ft) Plug back procedure Kick off depth (ft) Check all wireline logs run □ caliper □ density □ deviated/directional □ induction □ neutron □ resistivity □ gamma ray □ temperature □sonic Well cored □ Yes □ No Conventional Were cuttings collected □ Yes □ No Sidewall DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING WV1/somework of WAS WELL COMPLETED AS SHOT HOLE □ Yes □ No DETAILS _____ - Grate dinn WAS WELL COMPLETED OPEN HOLE? □ Yes □ No DETAILS

TYPE OF TRACER(S) USED _____

WERE TRACERS USED □ Yes □ No

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API 47- 061 _ 01464

Farm name_Haines, Noah & Lorraine

_Well number_L-59

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
			L		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (1bs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
				T i	()		I Color (colo)	- transporter (umb)
				 				
	<u> </u>							
				 				
				 				
				REG				
TO 1	•	1		REGA Office of One	ano G as			

Please insert additional pages as applicable.

JAN 0 8 2020

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Page 4 of 4 WR-35 Rev. 8/23/13 Farm name Haines, Noah & Lorraine Well number L-59 API 47- 061 01464 PRODUCING FORMATION(S) **DEPTHS** Pittsburgh Coal Seam TVDMD Please insert additional pages as applicable. **GAS TEST** □ Build up □ Drawdown ■ Open Flow OIL TEST | Flow | Pump SHUT-IN PRESSURE Surface 1 psi Bottom Hole psi DURATION OF TEST hrs OPEN FLOW Gas Oil NGL Water GAS MEASURED BY 114 mcfpd _____ bpd ____ bpd bpd □ Estimated □ Orifice □ Pilot LITHOLOGY/ TOP **BOTTOM** TOP **BOTTOM** FORMATION DEPTH IN FT DEPTH IN FT DEPTH IN FT DESCRIBE ROCK TYPE AND RECORD QUANTITY AND NAME TVD MD MD TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC) Pittsburgh Coal -0-0 2 903 893 Please insert additional pages as applicable. Drilling Contractor Address City _ State Zip Logging Company ___ Address State ____Zip ___ City Cementing Company Address City State Zip Stimulating Company City Address State Zip Please insert additional pages as applicable. Completed by Patrick Taylor Telephone 724-485-4150

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Title Sr. Engineer

Signature fatty

Attach copy of FRACFOCUS Registry

Date 12/3/2019

WW-4A Revised 6-07

1)	Date:	1/6/20
2)	Operator's V	Vell Number
L-59		

3) API Well No.: 47 -

061 _ 01464

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL

(a) Name Address	ner(s) to be served:	(5)	(a) Coal Operator	r /	
Addmaga	Noah V. & Lorraine Haines		Name	Consolidated Coal Company	
Address	2126 St. Leo Rd.		Address	46226 National Road	
	Mannington, WV 26582			Saint Clairsville, OH 43950	
(b) Name			(b) Coal Ov	wner(s) with Declaration	
Address			Name	Noah V. & Lorraine Haines	
			— Address	2126 St. Leo Rd.	
				Mannington, WV 26582	
(c) Name			Name	Consolidated Coal Company	
Address			— Address	46226 National Road	
				Saint Clairsville, OH 43950	
6) Inspector	Gayne Knitowski		(a) Cool I o	ssee with Declaration	
Address	P.O. Box 108		_ (c) Coar Le	ssee with Declaration	
Address	Gormania, WV 26720		Address		
Telephone	304-546-8171		Address		
relephone			_		
Take notice accompanyi Protection, we the Application	that under Chapter 22-6 ong documents for a permit with respect to the well at	any action at all. f the West Virginia Code to plug and abandon a v the location described or en mailed by registered	e, the undersigned well well with the Chief of th n the attached Applicati or certified mail or de	operator proposes to file or has file to Office of Oil and Gas, West Virgion and depicted on the attached F	deed this Notice and Application and ginia Department of Environmental orm WW-6. Copies of this Notice, named above (or by publication in
ommonwealth of Penns	vivania - Notary Seal	Well Operator	CNX Gas Company LLC		RECEIVED
Rebecca Zachwieja	a, Notary Public	By:	Raymond Hoon	my Aco	Office of Offiand Gas
Washington y commission expires	County	Its:	Senior Project Manager		
	ther 1269683	Address	1000 Consol Energy Dr	A, in quiespect	0.001001
Commission num	IDOI ISOUVOU				JAN 0 8 2
Commission num	ssociation of Notaries		Canonsburg, PA 15317		JAN 0 8 2
Commission num	ssociation of Notaries	Telephone	Canonsburg, PA 15317 724-485-4000		JAN 0 8 2
Commission num lember, Pennsylvania A	ensylvania, C	_			VV Department of Environmental Protection

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 depprivacyoffier@wv.gov.

WW-9 (5/16)

API Number 47 - 0	061	- 01464
Operator's Well No.	L-59	

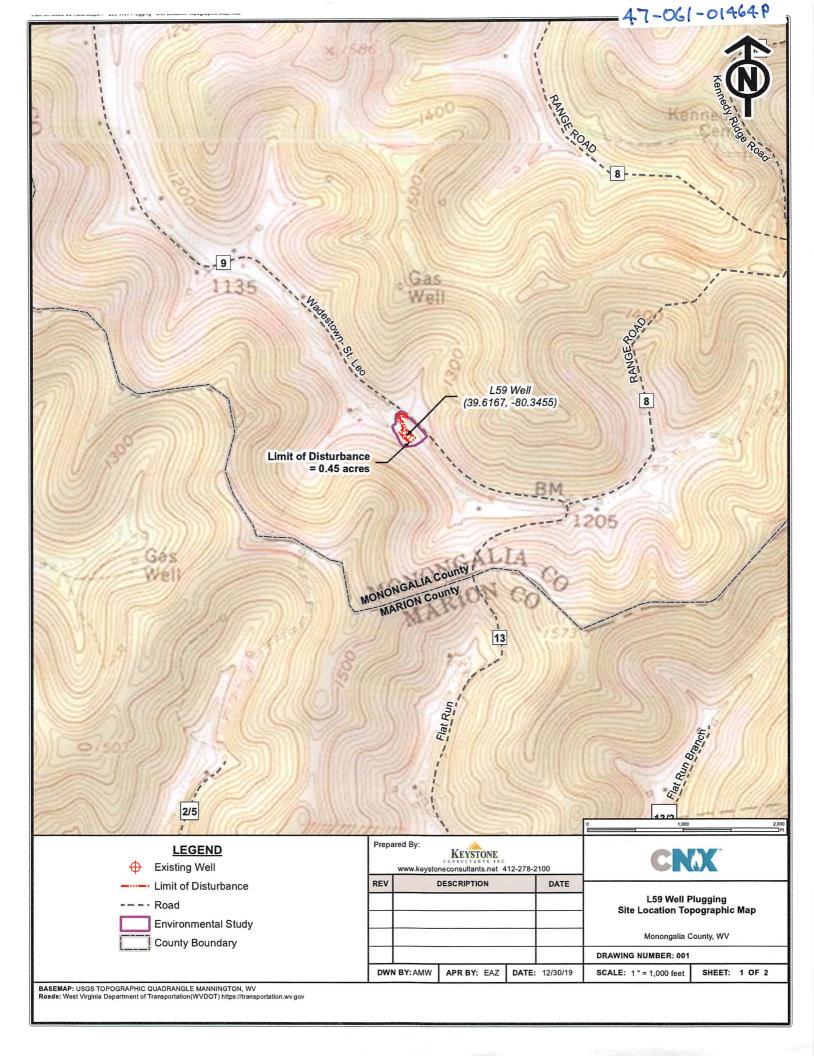
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION FLAN
Operator Name CNX Gas Company, LLC OP Code 494458046
Watershed (HUC 10) Dunkard Creek Quadrangle Mannington
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:
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 Waste Management or Ryan Environmental will use Vacuum trucks and properly dispose of any fluid or waste return
Will closed loop systembe used? If so, describe: no
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etcna
-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, etcna
-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) na
-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 obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.
Company Official Signature / Company Office of Oiland Gas
Company Official (Typed Name) Raymond Hoon
Company Official Title Senior Project Manager
monwealth of Rensiglvania, Country of Washington WV Department of Environmental Protection
Subscribed and sworn before me this day of farman, 20 10 10 10 10 10 10 10 10 10 10 10 10 10
Rebelca Jach wigh Notary Public Rebecca Zachwieja, Notary Public
My commission expires Movem by C 7, 2023 Washington County My commission expires November 7, 202
Commission number 1269683 Member, Pennsylvania Association of Notarie

Operator's Well No. L59

Landino Clover 5 Landin	Permanent Seed Type	lbs/acre
Fertilizer amount 500	Seed Type Sescue 4 no Clover 5	lbs/acre
Mulch hay or straw 2 Seed Mixtures Temporary Seed Type lbs/acre Tall Fescue 40 Tall F Landino Clover 5 Landin Wetla	Seed Type Sescue 4 no Clover 5	lbs/acre
Temporary Seed Type lbs/acre Tall Fescue 40 Tall Fescue Landino Clover 5 Landino Wetla	Seed Type Sescue 4 no Clover 5	lbs/acre
Temporary Seed Type lbs/acre Tall Fescue 40 Tall Fescue Landino Clover 5 Landino Wetla Attach:	Seed Type Sescue 4 no Clover 5	lbs/acre
Seed Type lbs/acre Tall Fescue 40 Tall Fescue Landino Clover 5 Landino Wetla Escue E	Seed Type Sescue 4 no Clover 5	lbs/acre
Tall Fescue 40 Tall F Landino Clover 5 Landin Wetla	rescue 4 no Clover 5	.0
Landino Clover 5 Landin Wetla Attach:	no Clover 5	
Wetla Attach:		5
Attach:	nd Mix as outlined in	
		E&S
Plan Approved by: Hay		
Reclaim Site ASAP		
	RECEIVED Office of Oil and Gas	
Foodbald St	JAN 0 8 2020	
	WV Department of Environmental Protection	





West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LOCATION FORM: GPS

	CATION FURMI. GIS
API: 4706101464	WELL NO.: L59
FARM NAME: Haines	
RESPONSIBLE PARTY NAME:	CNX Gas Company
COUNTY: Monongalia	Battelle
QUADRANGLE: Manningto	on
	HAROLD, SUSAN H, KENNETH A, TWYLA J; ET AL
ROYALTY OWNER:	
UTM GPS NORTHING: 43854	122.71
UTM GPS EASTING: 556171	122.71 .29 GPS ELEVATION: 355.70 m / 1166.99 ft
preparing a new well location plat f above well. The Office of Oil and O the following requirements: 1. Datum: NAD 1983, Zon height above mean sea lo 2. Accuracy to Datum – 3.0 3. Data Collection Method	05 meters RECEIVED
Real-7	Cime Differential
Mapping Grade GPS X : Pos	t Processed Differential X Environmental Protection
Rea	al-Time Differential
I the undersigned, hereby certify thi	s data is correct to the best of my knowledge and required by law and the regulations issued and Gas.
Kenny / / How	<u>PM</u> <u>1-6-2020</u> Date
Signature	Little Lighte