

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street SE Charleston, WV 25304 (304) 926-0450 (304) 926-0452 fax Earl Ray Tomblin, Governor Randy C. Huffman, Cabinet Secretary www.dep.wv.gov

January 16, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1300759, issued to CNX GAS COMPANY LLC , 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 all 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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654

James Martin

Chief

Operator's Well No: 8660

Farm Name: GAINER, LAURA

API Well Number: 47-1300759

Permit Type: PluggingDate Issued: 01/16/2014

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

CONDITIONS

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date	Janua	ary 13		,	20 14
2) Oper	ator	's			
Well	No.	8660			
3)API	Well	No.	47-013		- 00759

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

Check# 2780021983

4)	Well Type: Oil/ Gas X/ Liqui	MIT TO PLUG AND ABANDON d injection/ Waste disposal/ derground storage) Deep/ Shallow X
5)	Location: Elevation 1,052'	Watershed Pine Creek
	District Center O\	County Calhoun 13 Quadrangle Grantsville 379
6)	Well Operator CNX Gas Company LLC	7) Designated Agent Jeremy Jones
	Address P.O. Box 1248	Address P.O. Box 1248
	Jane Lew, WV	Jane Lew, WV
8)	Oil and Gas Inspector to be notified Name Ed Gainer	9) Plugging Contractor Name Waco Oil & Gas Company
	Address P.O. Box 821	Address 1595 US Highway 33E
	Spencer, WV 25276	Glenville, WV 26351

10) Work Order: The work order for the manner of plugging this well is as follows: See Attached

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector $\boxed{\text{EQ Garvee}}$ Date $\boxed{1/16/2014}$

Plugging Work Order for Permit 47-013-00759

WN 8660

- 1. Load Hole with 6% Gel
- 2. Verify TD

1900

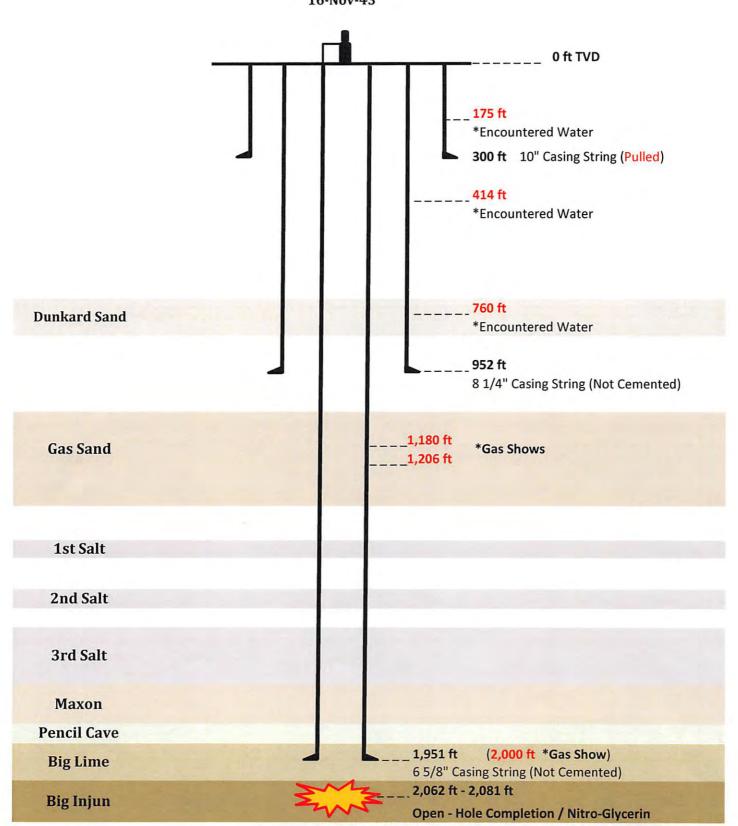
- 3. Pump Cement Plug from TD to 1950'
- 4. Freepoint, cut, and pull 6.625" Casing, (if unable to pull perforate every 200')
- 5. Pump Cement Plug from 1950" to 1740' (water shows)
- 6. Displace with 6% Gel
- 7. Pump Cement Plug from 1306' to 952' (gas shows and elevation plug)
- 8. Free point, cut, and pull 8.25" Casing, (if unable to pull perforate every 200')
- 9. Pump Cement Plug from 860' to Surface' (water shows and surface)
- 10. Install 6" x 14' monument API 47-013-00759

Work Order approved by inspector

Date:

Note: All cement will be Class A with 6% gel spacers between all plugs

Well No. 8660
Gainer Well, Calhoun County, West Virginia
Elevation: 1,052 ft
16-Nov-43



Pulled

In Hole

In Hole



CONSOL Energy WV Gas Operations - Jane Lew

Well No. 8660 Gainer Well, Calhoun County, West Virginia Elevation: 1,052 ft 16-Nov-43

Well Ir	formation	Casi	ng Detail
Well No.	8660	10 inch Casing	300 ft
Lease No.	38687	8 1/4 inch Casing	952 ft
Acres	80	6 5/8 inch Casing	1,951 ft
District	Center	· .	,
County	Calhoun		
Permit Granted	May 24, 1943		
Commenced	September 20, 1943		
Completed	October 16,1943		
Contractor	C.F. Engel		
Date Connected	November 16, 1943		
Date TIL	November 16, 1943		
Elevation	1,052 ft		

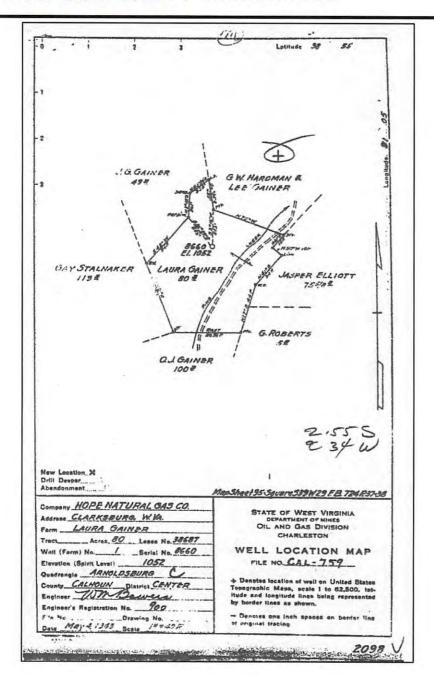
Formation Record

Formation	Top (ft)	Bottom (ft)	Oil At (ft)	Gas At (ft)	Water At (ft)	Fresh or Salt
Native Coal					175	
Pittsburgh Coal					414	
Dunkard Sand					760	
Dunkard Sand	753	778				
Gas Sand	1056	1320		1180		
1st Salt	1448	1482		1206 - 1210		
2nd Salt	1600	1630				
3rd Salt	1685	1817	-			
Maxon	1826	1912			-	
Pencil Cave	1912	1923				
Big Lime	1923	2020		2000 - 2004		
Big Injun	2020	2087	2062 - 2081	2062 - 2081		

TELCT A	CON	100						RECC	ORD			1	-1	620	***	-	TO I AV C	
NTY /	Sal	bost	11	FUE	COCTAICS	TOP	BOTTO	-	LAT	GAS AT	NATER AT	FRESH OR SALT	SIZK	I ful in	ING AN	PULLED		CEMENTEN
MIT GRANT			1-1943	Natha Ca	ral					-				103 28	Pater	e stated?	1	
ATED	Ma		1. 1043	Phinapage	h Coal	1		1		-	175		15 In Casing	100	700		Date	11 1 441 441 4
MENCED	5007	ember	1 20 - H	3 Damard	Sand	1 4	53 4	46	- 1		760		84 in Caring		952	300		Castng
PLETED	Potos		6th, 43		Sann	1 105	6 13	20		1180	, /22		A service of the serv	1 /3	702	M4.1	Top	-
TRACTOR	2,5	Enge		fram to	5011		8 140	-		206-12			65 to Castng	. 17	21.	- 1749	Butt	AM
CHASED FR	1001	/	Per Post	Mighing	Sali		16:		1	Close			5-76 fer. Casing		.4%		· *	en le te
E PULCHASI	שו שיו	-013-7	59	Franki	Salt	168			-	- 1			in Tuying	*	- •	(X =		T TTO 949 9
T REUT IN					XON	182	6 10	17	1 -		1540				0.00			
E CONNECTI	ED NOV.	16-43			Cars	1012	192	-	- 1	•	1860		n mang			-		
E TURNED	0x//-/6	-43 WF		Assing	Lynn		202			000-05				1 0-				+ -
E DISCONSE	ECTED			Tring	Popul					062-81		* ******			SHOOT	FINC		
re .		THE WORLD ST.	201	May Sa		2042	400	1 400	+ 3/- 4	10.00		· wrone	PATE	QTS.	BAND		RE BEFORE	VOLUME AFT
E SOLD				Gordon Br	and	*****	1					1 + 0 mg 1 - V						
E RE-PURCE	HASED		31.8	Ponth &		9,75804	* 1					14	-19-194	9 90	B.LASH)	6	2.980	935,00
E PLEGGED				Fifth Sen.	d		-	1	- +-		- 15			A		1-0	~ ~ ~	
5 CERT. 800	NT D. OF M	* - 111	-	Bayard th	ant												men all e	
E ABANDON			C	Speechley	1 4	a special contract				:	- "						-	
VATION /	150			of more trans						-								
11	001			701.	AL DEPTH	*		17'								- 194		
	002.	* (84) = -1	of the southern	TOTA	AL DEPTH		212	9										
		Name of the last o		* * ***	LUME	AND P	RESSI	ORE	TEST	s		15444)	***************************************	1		P	ACKE	RS
DATE TAK	KEN	HKADING	LIGUIS	* * ***	************	,	-	ORE	-	-	ROCK	VOLUME	1	5AND	gi	P	ACKE	R S
DATE TAK	KEN	-		V O I	LUME POUNDS	,	-		-	-	моск		0 6-	-				7
DATE TAK	KEN 1943	62/10	Water	yo	LUME ,	,	-		-	-	ROCK	59.24	o Gas	Sans				7
DATE TAK	KEN 1943	10/10	Water	VOI OPENING /*FM, /*FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d			7
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d			7
DATE TAK	KEN 1943	10/10	Water	VOI OPENING /*FM, /*FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	O Gas	Sans	d			7
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d			7
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d			7
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Tojun	725	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	KEN 1943	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	d Jajuns	VITIAL	MAKE	SET AT
DATE TAK	1943 6 -	10/10	Water	VOI apening /"FM, /"FM, /"FM,	LUME POUNDS PRESSURE	1 MIN.	5 HIN. 1	16 MIN.	S6 MIX.	60 MIN.		59.24	80 Trois	Sans	The Da	VITIAL	MAKE	SET A

#8660 Overview: General Info





			6					
			6	3				
	,		DEPARTME	NEST VINGHIA				
unal.	dole	249		AS DIVISION				
		1						
Permit No. GAL-	759		WELL	RECORD)	Oil or	Ger Welt_	Gas
Company Hop	e Natural	Gas Company		Carter and	Tland to	Laft to	1	Mary.
Address 445	W. Main S	t. Clarksbur		Casteg and Taking	Used in Drilling	Left in Wall		Packers
Parm Lau	ra Cainer		erea BO	Size			1	
Location (waters).				16			W-1-1	Packer
Well No.			1052	18			AUBE DE	**************************************
District Cont			houn	10	298	298	Sise of	-
The surface of trac			Z1 co. V. 78.		944	944	Case OL	**********
Mineral rights are		THE PARTY.		9%	1937	1937	Depth :	d
erroster tellers sta		Address		68/16			1	
Drilling commence	a Sept.	20, 1945		8			Perf. to	p
Drilling completed.	Oct. J	18, 1943		2			Perf. be	
Date Shot 10-1	9-45 From	1999 T	z006 - 30			-	Perf. to	·
With	Yron	2002	2081 60				Port. be	otten
Open Flow	/10ths Water	la.	Inch	THE PARTY OF			-	_
36	/10ths Mere,	h &	Inch				No. Ft	D
Volume	439,000		Cu. Ft.	78	ot camente	d		
Rock Pressure	- train		hra		COUNTERED	Dered	VEST.	INCH
OIL	-		bblz., 1st 24 hrs.				VEET	INCH
Presh water 17	40	foot 1850	750feet					
Salt water 18	THE LAND							
-			feet	- FEE			FEST	INCH
Farmation	Celar	Hard or Saft	Tog	Rottem	Oil Ges er Water	Dept Form		Ilonariu
Farmation			Tog	Bottom				
Farmation End Clay			Top	Settem 40				
Farmation End Clay Blue Lime			7ng 0 40	Sottem 40 45				
Farmation End Clay			Top	## 40 45 65 80				
Farmation Had Clay Blue Lime Red Rook Blue Lime Blue Slate			7ee 0 40 45 65 80	40 45 65 80 87				
Farmation Rad Clay Blue Lime Red Rook Blue Lime Blue Slate Sand			7eg 0 40 45 65 80 87	#0 45 65 60 87 93				
Farmation Rad Clay Blue Lime Red Rock Blue Lime Blue Slate Sand Red Rock	Color		7np 0 40 45 65 80 87 93	40 45 65 80 87 93 130				
Farmation Rad Clay Blue Lime Red Rock Blue Slate Sand Red Rock Thite Slate	Color		7ms 0 40 45 65 65 80 87 93 130	40 45 65 80 87 93 130 152				
Farmation Rad Clay Blue Lime Red Rock Blue Slate Sand Red Rock White Slate	Color		7np 0 40 45 65 80 87 93	40 45 65 80 87 93 130				
Had Glay Blue Line Red Rook Blue Line Blue State Sand Red Rook Mite Slate Line Red Rook	Color		0 40 45 65 60 87 93 130 152 190	40 45 65 80 87 93 130 152 190 212				
Had Clay Blue Line Red Rock Blue Slate Sand Red Rock White Slate Line Red Rock Critty Line	Color		700 40 40 45 55 60 87 93 130 152 190	40 45 65 60 87 93 130 152 190 212				
Farmaties Rad Clay Blue Line Red Rock Blue Line Blue Slate Sand Red Rock Mits Slatt Line Red Rock Grity Line Red Rock	Color		789 0 40 45 55 80 87 93 130 152 190 £12 235	40 45 65 80 87 93 130 152 190 212 236 248				
Had Clay Blue Lime Red Rock Blue Lime Blue Slate Sand Red Rock White Slate Lime Red Rock Critty Lime Red Rock	Color		700 40 40 45 55 80 87 93 130 152 190 812 235 246	40 45 65 60 87 93 150 152 190 212 236 248 260		Pots	th di	
Farmaties Had Glay Blue Line Red Rook Blue Slate Sand Red Rook Mits Slate Line Red Rock Critty Line Red Rock Sand Blue Slate Sand Blue Slate	Color		789 0 40 45 55 80 87 93 130 152 190 £12 235	40 45 65 80 87 93 130 152 190 212 236 248		Pots	th di	
Farmaties Had Glay Blue Line Red Rook Blue Slate Sand Red Rock White Slate Line Red Rock Gritty Line Red Rock Sand Blue Slate Line White Slate Line White Slate Line	Color		0 40 45 65 80 87 93 130 152 190 812 236 248 4 280 296 317	40 45 55 60 87 93 150 150 212 236 248 260 296 317 346		Pots	th di	
Farmaties Had Glay Blue Line Red Hook Blue Slate Sand Red Hook White Slate Line Red Rock Critty Line Red Rock Sand Blue Slate Line White Slate Line White Slate And Rock	Color		7mg 0 40 45 55 80 87 93 130 152 190 81 2 235 246 4295 317 346	40 45 65 80 87 93 130 152 190 212 236 248 880 296 317 346 552		Pots	th di	
Farmaties Rad Clay Blue Line Red Rook Blue Slate Sand Red Rock White Slate Line Red Rock Critty Lim Red Rock Sand Blue Slate Line White Slate Line White Slate Mite Slate	Color		0 40 45 65 80 87 93 130 152 190 112 235 246 4 280 295 317 346 352	40 40 45 65 60 87 93 130 152 190 218 236 248 360 290 317 346 352			th di	
Farmaties Had Glay Blue Lime Red Hook Blue Lime Red Hook Mite Slate Lime Red Hook Gritty Lime Red Hook Sand Blue Slate Lime White Slate Lime White Slate Hite Slate Lime White Slate Black Lime White Slate Black Lime	Color		0 40 45 55 80 87 93 130 152 190 112 235 246 4 260 296 317 346 352 360	######################################		Pots	th di	
Farmaties Red Clay Blue Line Red Rook Blue Slate Sand Red Rock White Slate Line Red Rock Critty Lim Red Rock Sand Blue Slate Lime White Slate Lime White Slate Mite Slate Red Rock White Slate Red Rock	Color		0 40 45 65 80 87 93 130 152 190 112 235 246 4 280 295 317 346 352	######################################		Pots	th di	
Farmaties Bad Glay Blue Line Red Rock Blue Line Red Rock White Slatt Line Red Rock Sand Gritty Line Red Rock Sand Blue Slate Line White Slatt Line White Slate Billine White Slate Billine White Slate Black Line White Slate Black Line Black Line	Color		0 40 45 55 80 87 93 130 152 190 812 235 246 429 250 375 360	######################################		Pots	th di	
Farmaties Red Clay Blue Line Red Rook Blue Slate Sand Red Rock White Slate Iline Red Rock Gritty Lim Red Rock Sand Blue Slate Lime White Slate Blue Slate Black Lime Red Rock Blue Slate Lime	Color		0 40 40 45 65 60 87 93 130 152 190 812 236 246 296 317 346 350 375	######################################		Pots	th di	
Farmaties Rad Clay Blue Line Red Rook Blue Slate Sand Red Rock White Slate Line Red Rock Critty Lim Red Rock Sand Blue Slate Line White Slate Line White Slate Line Black Line Black Line Black Line Slate Blue Slate Line Sand Shad Shad Shad Shad Shad Shad Shad Sha	Color		0 40 45 55 80 87 93 130 152 190 812 235 246 4 280 375 365 375 385 390 405	### ### ### ### ### ### ### ### ### ##		Pots	th di	
Farmaties Rad Clay Blue Line Red Rook Blue Slate Sand Red Rock White Slate Lime Red Rock Shite Slate Lime Red Rock Shite Slate Lime White Slate Blue Slate Lime Red Rock Blue Slate Red Red Rock Blue Slate Red Red Rock Blue Slate Red	Color		0 40 40 45 65 80 87 93 130 152 190 812 235 246 327 346 352 360 375 386 390 405 436	######################################		Pots	th di	
Farmaties Rad Clay Blue Lime Rad Rock Blue Slate Sand Rad Rock White Slate Rad Rock Critty Lime Rad Rock Sand Riue Slate Lime White Slate Black Lime Rad Rock Sinte Slate Lime Sand Rive Slate Rad Rock White Slate Black Lime Rad Rock Lime Rad Rock Rock Rock Rock Rock Rock Rock Rock	Color		0 40 40 45 55 80 87 93 130 152 235 246 4 280 275 360 377 366 352 360 375 386 436 446	######################################		Pots	th di	
Farmaties Had Glay Blue Line Red Hock Blue Slate Sand Red Rock Mite Slate Line Red Rock Critty Line Red Rock Sinte Slate Line White Slate Line Blue Slate Blue Slate Line White Slate Blue Slate Line Red Rock White Slate Red Rock Blue Slate Line Red Rock White Slate Red Rock White Slate Line Red Rock White Slate Red Rock White Slate Red Rock White Slate Red Rock	Color		0 40 40 45 55 80 87 93 130 152 190 812 255 246 42 296 317 346 352 360 375 386 446 446	### ##################################		Pots	th di	
Farmaties Pad Clay Blus Lime Red Rock Blus Lims Red Rock White Slate Lime Red Rock Critty Lim Red Rock Sand Rlus Slate Lime White Slate Lime White Slate Lime White Slate Black Lime Sand Rock Blus Slate Lime White Slate Red Rock Blus S late Lime Red Rock Ritte Slate Red Rock White Slate Red Rock White Slate Red Rock	Color		0 40 45 55 80 87 93 130 152 190 812 836 460 296 317 346 456 446 462 467	######################################		Pots	th di	
Farmaties Bad Glay Blue Lime Red Rock Blue Lime Red Rock Mite Slatt Lime Red Rock Sand Blue Slate Sand Blue Slate Lime Red Rock White Slate Lime White Slate Lime Red Rock White Slate Black Lime Red Rock White Slate Black Lime Red Rock White Slate Red Rock White Slate Red Rock	Color		0 40 40 45 55 80 87 93 130 152 190 812 255 246 4 296 317 346 352 360 375 366 436 446 462 467 513	######################################		Pots	th di	
Farmaties Rad Clay Blue Line Red Rock Blue Slate Sand Red Rock White Slate Line Red Rock White Slate Line White Slate Line White Slate Line White Slate Line Red Rock White Slate Line Red Rock White Slate Red Rock White Slate Red Rock Blue S late Line Red Rock White Slate Red Rock White Slate Red Rock Rock Rock Rock White Slate Red Rock Rock Rock Rock Rock Rock Rock Rock	Color		0 40 45 55 80 87 93 130 152 190 812 836 460 296 317 346 456 446 462 467	######################################		Pots	th di	
Farmaties Rad Clay Blue Line Red Rock Blue Line Red Rock Mits Slate Sand Red Rock White Slate Line Red Rock White Slate Line White Slate Line Red Rock White Slate Red Rock White Slate Gritty Lin White Slate Gritty Lin White Slate Red Rock	Color		0 40 45 55 80 87 93 130 152 190 812 256 426 426 436 446 462 467 513 0526	######################################		Pots	10,10	Bosolu
Farmaties Rad Clay Blue Lime Red Rock Rius Lime Red Rock Shite Slate Sand Red Rock Shite Slate Lime Red Rock White Slate Red Rock White Slate Red Rock White Slate Red Rock White Slate Red Rock	Color		0 40 40 45 65 80 87 93 130 152 190 812 235 246 352 360 375 360 375 466 466 467 513 526 554	######################################		Pots	No. 10	Bosolu
Farmaties Red Clay Blue Line Red Rock Blue Slate Sand Red Rock White Slate Line Red Rock Critty Line Red Rock White Slate Line White Slate Line Red Rock White Slate Red Rock White Slate Gritty Line White Slate Gritty Line White Slate Red Rock	Color		0 40 45 55 80 87 93 130 152 190 812 256 426 426 436 446 462 467 513 0526	######################################		Pots	10,10	Basch

#8660 Overview : General Info



Formation.	Color	Hard or Sets	Yes	Bettem	Off, Gos or Water	Depth Found	Remarks
Red Rock			635	696	1		
Gritty Lim			596	716	1		
White Slate			714	725			
Critty Lim			786	730	1		
White 9 la	10	1	720	742			
Gritty Lim				100			
LITTLE DUNG	ARD	1	74.2 753	753	Vator	760	1
Blue S late			778	788	agreent.	700	à bailer hr
Gritty Lim	,		766	608			
Red Rock	in the		808	831	1	1	
Grey Lime		1	851	860	1		
Soft Slate		1	860	881	1	1 3	i
Hard Lime			881	918		1	
Black Slat			91,8	825	1	1	-
Blue Lime			926	1008	1		
Soft Blate			1008	1018			
Hard Lime		1	1018	1056		.7 .5	
GAS SAND			1056	1320	Lime Bresk	11:32-1163	
Black Slat		1	1380	1364	Gas	11.00	1116
Soft Sand			1364	1372	Cas	1205-121	
Slate			1372	144B			
FIRST SALT	CHARL	1	1448	1483			
FIRST SALT	lla	1	1488	1800	1		
SECOND SAL	C. Oray		1600	1638			
Derk Slate			1685	1817	Break	1785-1795	
Hared Line	7		1817	1826	DIGHA	2700-2100	
MINION SAND	7		1825	1912	Breek-Lim	1889-1897	
		1			Water	1840	
			1000	1985	Water	1860	
Pencil Care	,		1912	1983	Oes	2000-2004	
INJUM		1	2020	2087	Cas	AD 68-2063	
Slate			2087	2129			
					1 2		
W. W. W.					1 300		
Total depth	-	- 21		SIX9			
		1					
		1					
1		1.			1 1	1	
- 1		//				- 1	
1						1	
			1				*
1			N 1 - 1		6.		
- 3							
. 1	5	1				1	
						- 4	
- 1					1	1	
						1	
		1			1 1		
1	1						
- 1						1	
- 1				- 0			
		2					
- 1							
1							
		1	1			14.1.1	
		1	*	1			
-	400	- born	- 1				
-	. 1					v. 5	1040
							1945 194
			APP	ROVED	Hope Matoraly	Sea Company	Own
					11 11 11 1	1.11.1	Supt.

WW-4A Revised 6-07

1) Date:	1/13/14				
2) Operator's	Well Numb	er			
		8660			
3) API Well N	o.: 47 -	013	12.	00759	

STATE OF WEST VIRGINIA

4) Surface Ow	vner(s) to be served	l: 5)	(a) Coal Operato	r
(a) Name	Connie McCartney	W	Name	None of Declaration
Address	4904 Pine Creek Road	d	Address	
	Grantsville, WV 2614	7		-
(b) Name			(b) Coal O	wner(s) with Declaration
Address			Name	None of Declaration
			Address	TOTO ST DESIGNATION
(c) Name			Name	
Address	-		Address	
	-			
) Inspector	Ed Gainer		— (a) C11	and the Delta of
Address	P.O. Box 821		(c) Coar Le Name	ssee with Declaration
11441035	Spencer, WV 25276			None of Declaration
Telephone	304-389-7582		Address	-
	304-303-1302			
(1) The well (2) The	application to Plug and its and the plugging wo plat (surveyor's map) s	d Abandon a Well on ork order; and howing the well locati	Form WW-4B, which	eived this Form and the following documents: sets out the parties involved in the work and describes the sets out the parties involved in the work and describes the sets out the parties involved in the instructions on the reverses side
(1) The well (2) The The reason However, y Take notice accompany Protection, the Applica	application to Plug and its and the plugging we plat (surveyor's map) so you received these docur you are not required to take that under Chapter 22-6 ving documents for a perm with respect to the well at	A Abandon a Well on ork order; and howing the well location at all. of the West Virginia Cook to plug and abandon a the location described of the mailed by registered even mailed by registered of the west was a second to the location described of the west was a second to the location described of the west was a second to the location described of the west was a second to the west was a second	Form WW-4B, which ion on Form WW-6. Ights regarding the applied to the undersigned well with the Chief of the on the attached Application of the control of	sets out the parties involved in the work and describes the cation which are summarized in the instructions on the reverses side operator proposes to file or has filed this Notice and Application are Office of Oil and Gas, West Virginia Department of Environment
(1) The well (2) The The reason However, y Take notic accompany Protection, the Applic	application to Plug and its and the plugging we plat (surveyor's map) so you received these docur you are not required to take that under Chapter 22-6 ying documents for a perm with respect to the well at ation, and the plat have b	A Abandon a Well on ork order; and howing the well location at all. of the West Virginia Cook it to plug and abandon a the location described ceen mailed by registered e day of mailing or deliver.	Form WW-4B, which ion on Form WW-6. Ights regarding the applied, the undersigned well well with the Chief of the on the attached Applicated or certified mail or devery to the Chief. CNX Gas Company L. Jeremy Jones Designated Agent - G. P.O. Box 1248 Jane Lew, WV 26378	cation which are summarized in the instructions on the reverses side operator proposes to file or has filed this Notice and Application are office of Oil and Gas, West Virginia Department of Environment on and depicted on the attached Form WW-6. Copies of this Notice in the person(s) named above (or by publication of the person(s) named above (or by publication of the person of the publication of the person of the pers

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.

SURFACE OWNER WAIVER

Operator's Well Number

0	~	\sim	\sim	
×	n	n	11	
8	u	u	w	

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (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 FIVE (5) 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.

<u>Comments must be in writing.</u> 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;
- 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.

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 Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned we objection to a permit being issued on those materials.	ork described in these ma	teriais, and I have no
FOR EXECUTION BY A NATURAL PERSON	FOR EXECUTION I	BY A CORPORATION,
Name Signature Signature Name Name By		
Its		Date
	Signature	Date

WW-9 Rev. 5/08

	Page		of	
API Number 47	- 013		00759	
Operator's Well 1	No. 8660	-		

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name CN	X Gas Company LLC		OP Code 494458046 Quadrangle Grantsville	
Watershed Pine Co	reek	Quadrangle		
Elevation 1,052'	County Cal	houn	District Center	
Description of antic	ipated Pit Waste: Fluids associa	ated with the plug	gging of existing gas we	lls
Will a synthetic line	er be used in the pit? yes - 20ml			
Proposed Disposal 1	Method For Treated Pit Wastes: Land Application Underground Injection (UIC	Permit Number)
=	Reuse (at API Number Off Site Dispposal (Supply fo Other (Explain	orm WW-9 for disposal	location))
Proposed Work For	Which Pit Will Be Used: Drilling Workover Other (Explain	Swabb X Pluggir		
on August 1, 2005, 1 provisions of the pe law or regulation ca I certify un application form an obtaining the inform penalties for submitte Company Official S Company Official (by the Office of Oil and Gas of the Wrmit are enforceable by law. Violation lead to enforcement action. Inder penalty of law that I have personal all attachments thereto and that, mation, I believe that the information false information, including the property of the p	rest Virginia Departmentions of any term or consonally examined and based on my inquiry on is true, accurate, are possibility of fine or im	nt of Environmental Protection. Indition of the general permit and am familiar with the information of those individuals immediated complete. I am aware that inprisonment.	I understand the door other application submitted outely responsible there are significant.
Subscribed and swo	rn before me this 13th day	January	, 20 14 Notory Public	
My commission exp	9/15/2021			OFFICIA NOTARY STATE OF WE CAROLINDA PO Bo Lumberport

	LEGEND
Property Boundary	Diversion League Land Land Land Land
Road = = = = = = = = = =	Spring -
Existing Fence — X — X — X —	Wet Spot
Planned Fence / / /	Drain Pipe with size in inches (2)
Stream	Waterway C+ C+ C+ C+
Open Ditch	Cross Drain 7////////////////////////////////////
Rock 555555	Artificial Filter Strip
North N	Pit: cut walls
Buildings	Pit: compacted fill walls
Water wells W	Area for Land Application of Pit Waste
Drill site	
Proposed Revegetation Treatment: Acres Disturbed .50	Prevegetation pH 6.5
according to pH test	
Lime Tons/acre or to correct to pH	[' ' '
Fertilizer (10-20-20 or equivalent) 500 lbs	s/acre (500 lbs minimum)
hay or straw @ 2	
Mulch Tons/a	acre
See	d Mixtures
Area I	Area II
Seed Type lbs/acre	Seed Type lbs/acre
Orchard Grass 25	Orchard Grass 25
Birdsfoot Trefoil 15	Birdsfoot Trefoil 15
Ladino Clover 10	Ladino Clover 10
	lication.
Drawing(s) of road, location,pit and proposed area for land app Photocopied section of involved 7.5' topographic sheet.	
Drawing(s) of road, location,pit and proposed area for land app Photocopied section of involved 7.5' topographic sheet.	
Plan Approved by:	



WW-7 8-30-06



West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 4/	-013-0759	_{WELL NO} :#8660
FARM N	_{IAME:} Laura Gainer	
RESPON	ISIBLE PARTY NAME: CNX C	Sas Co. LLC
COUNTY	_{v:} Calhoun	_ _{DISTRICT:} Center
	ANGLE: Grantsville	
	ce owner: Connie McCa	
ROYAL	ry owner: P.L. Gainer A	gent
	S NORTHING: 4303467.9	
		GPS ELEVATION: 321 M
above we the follow 1. 2. 3.		meters.
	Real-Time Differer	ntial
Марр	ing Grade GPS X : Post Processed I	Differential X
	Real-Time Diffe	erential
belief and	Letter size copy of the topography ensigned, hereby certify this data is correct shows all the information required by d by the Office of Oil and Gas.	ect to the best of my knowledge and
-		

FT.

WV Gas Operations

