

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

October 31, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10301822, 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.

Chief

James Martin

Operator's Well No: W-2

Farm Name: KOONTZ, RUTH L.

API Well Number: 47-10301822

Permit Type: Plugging Date Issued: 10/31/2014

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.
- 4. This well is under a consent order and must be plugged under the terms of that agreement.

Permit

WW-4B (Rev. 6-07)

August 21, 2014 1) Date: 2) Operator's Well Number Koontz, Ruth L. #W-2 47 -3) API Well No .: 103 01822

County

State

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

(If "Gas", Prod	uction X or Unde	rground storage) Deep _	/ Shallow X
) Location:	Elevation 1342.67' District Clay		West Virginia For Wetzel	k Fish Creek Quadrangle Littleton
Well Operator	CNX Gas Company, LLC	7)	Designated Agent	Matthew Imrich
Address	200 Evergreene Drive Waynesburg, PA 15370		Address	One Dominion Drive Jane Lew, WV 26378
) Oil and Gas Ins	pector to be notified	9)	Plugging Contractor	
Name	Derek Haught		Name	Skyline Contracting
Address	P.O. Box 85		Address	P.O. Box 663 Oakwood, VA 24631
	Smithville, WV 26178			
	e work order for the manne ttached pages.	r of plugging thi	s well is as follows:	
		r of plugging thi	s well is as follows:	
		er of plugging thi	s well is as follows:	
		r of plugging thi	s well is as follows:	
		er of plugging thi	s well is as follows:	
Please see at	ttached pages.			
Please see at				mitted work can commen

Ruth L. Koontz CBM W-2

Clay District

Wetzel County

P.N.: 47-103-01822

Location: Littleton Quad Lat: 5050'S of 39 degrees 42 min 30 sec

Long: 11,736' W of 80 degrees 30 min 00 sec

Elevation: 1342' GLM

D = 2095

PROPOSED PLUG & ABANDONMENT PROCEDURES

- Blow the well down. Pump 50 bbl of water into the well to kill the well.
- 2. Allow the well to sit for 12-18 hours to allow bubbles to dissipate in water.
- Rig up Wireline Company and run a Gamma Ray, Cement Bond, CCL log.
- Perforate any areas where cement bond is not indicated.

Note: An attempt can be made to cut and pull casing but it appears both casing strings were cemented back to surface, and the casing cannot be removed.

- 5. Rig up a service rig over the well. Install a 5 1/2" JU well control head onto the 5 1/2" casing collar at surface. Connect the JU Head to a flowline directed to a portable steel pit to catch any fluids circulated from the well.
- 6. Run 2,050' of 2 3/8" 8rd EUE tubing in the well with the tubing equipped with a plain collar on bottom.
- 7. Rig up Cementing Company. Break circulation through tubing w/t fresh water. Mix and pump 136 sx (161cubic ft) of regular Class A Portland Cement containing 2% gel and 2% CaCl2.
- Displace the cement to 800' w/t fresh water.
- 9. Pull the tubing to 800'. Mix and pump 15 bbl of gel.
- 10. Pull the tubing to 500'. Mix and pump 35 sx (41 cubic feet) of Regular Class A Portland Cement containing 2% gel and 2% CaCl2. Pump cement till cement returns to surface.
- 11. Pull the remaining tubing from the well. Top off the hole with more cement due to tubing displacement. Office of Oil and Oil displacement.
- 13. Install a pipe monument with the API number welded on the side of the monument.

Environmental Protection 10/31/2014

- 14. Rig down the service rig, empty and dispose of fluids captured in the portable steel pits. Remove from site.
- 15. Grade, seed and mulch the location as required.

CEMENT PLUG 1. SET CLASS A CEMENT PLUG WITH NO MORE THAN 3% CaCla AND NO OTHER ADDITIVES FROM 2000' - 800'

GEL SPACER. FRESH WATER WITH AT LEAST 6% BENTONITE AND NO OTHER ADDITIVES FROM 800' - 500'.

CEMENT PLUE 2. SET CLASS A CEMENT PLUG WITH NO MORE THAN 3% CaCl2 AND NO OTHER ADDITIVES FROM 500' - SURFACE.

2 m 10/30/2014

ENTIRE WELL BORE MUST BE FILLED WITH EITHER 6% GEL OR CLASS A CEMENT.

ATTACHMENT B Wetzel County CBM Well No. W-2 Completion

Permittee:	Consol Energy, Inc. (North)
API Permit No.:	47-103-01822
Company Well No .:	CBM Well No. W-2
Completion Date:	06/22/2001
Total Depth:	2095'

Coals	Zone 1 Clarion and Kittanning Coals	Zone 2 Middle Freeport, Mahoning and Bakerstown	Zone 3 Pittsburgh	Zone 4 Sewickley
Treatment	e de la Spania (anti-de e			
Nitrogen (MSCF)	308	440	500	258
Water (BBLS)	163	165	247	145
Sand (SXS 16/30)	48	250	600	204
Top Perf	1872	1521	1161	1056
Bottom Perf.	1986	1792	1166	1059
# Perfs	28	20	20	12
Perf Size	0.45	0.45	0.45	0.45
Break, Press.	3743	3096	1600	2093
Avg. Rate	22.5	23.7	24.8	18.9
ISIP	Sanded Out	2205	2432	2971
Min	5	5	5	5
Min Press.	N/A	1756	2069	2175
Avg. Press.	3566	2951	2448	3100
Stimulated	Y	У	У	Y
Stim. Date	06/22/2001	06/22/2001	06/22/2001	06/22/2001

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Office of Oil & Gas
Permitting

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WV Department of
Environmental Protection

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ATTACHMENT C

Wetzel County CBM Well No. W-2 Perforations

Permittee: Consol Energy, Inc. (North)

API Permit No.: 47-103-01822

Company Well No.: Wetzel County CBM Well No. W-2

Total Coal Thickness: 23.3 ft.

STAGE 1

Formation 47 (Tr	Top of Coal;	Bottom of Coal.	Cool, Thickness	Actual Perfs
Clarion	1983.8	1986.0	2.2	1984-1986
Middle Kittanning	1924.2	1927.0	2.8	1924-1927
Upper Kittanning	1871.6	1873.6	2.0	1871.5-1873.5

Total Coal 7.0

STAGE 2 L

1788.5	1791.5	3.3	1788.5-1791.5
1715	1715.8	0.8	1715-1716
1520.8	1521.9	1.1	1521-1522
	1715	1715 1715.8	1715 1715.8 0.8

Total Coal 5.2

3 Pit	ttsburgh	1160.3	1166.5	6.2	1161-1166
Pit	ttsburgh Rider	1158.2	1159.7	1.5	

Total Coal 7.7

STAGE 4

6E 4	Sewickley	1055.6	1059.0	3.4	1055.5-1058.5
				2.4	

Total Coal 3.4

** Perf with 4" guns, 4 Jet Shots per Foot, 120 degree Phasing

** Isolate stages with FasDrill Frac Plugs

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Environmental Projection

Environmental Projection

10/31/2014

<u>ATTACHMENT A</u>

Wetzel County CBM Well No. W-2 Drill Log

Depth	Description	
0-30	Тор	
30-832	Sand/Shale	
832-834	Coal (Waynesburg)	
834-1045	Shale	
1045-1080	Sand/Shale	
1080-1083	Coal (Sewickely)	
1083-1186	Shale	
1186-1192	Coal (Pittsburgh)	
1192-1225	Gray Sand	
1258-1290	Red Rock	
1290-1455	Sand/Shale	
1455-1475	Red Rock	
1570-1585	Red Rock	
1585-1615	Shale	
1615-1651	Sand/Shale	
1651-1653	Coal (Mahoning)	
1653-1812	Sand/Shale	
1812-1815	Coal (Upper Kittanning)	
1815-1890	Sand/Shale	
1896-1900	Coal (Middle Kittanning)	
1900-2095 (TD)	Sand/Shale	

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Environmental Protection

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Oil

WW-4A (Rev. 6-07)

4) Surface Owner(s) to be served:

1) Date: August 22, 2014

2) Operator's Well Number

Koontz, Ruth L. #W-2

3) API Well No.:

47 -State

103 County 01822 Permit

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

5) (a) Coal Operator

(a) Name	Michael L. Koo	ontz &Ruth L.	Koontz	name			
Address	P.O. Box 199		/	Address			
	Littleton, WV 2	6581			+		
(b) Name	Littleton, vv v Z	.0001		(b) Coal Ov	vner(s) with De	claration	
Address	-			Name	CNX RCPC		W
Address	-			Address		ol Energy Dri	
	-			Addiess		g, PA 15317	VC
(c) Name				Name	Canonicour	9,17,10017	
Address				Address	-		
71001000				1.00.000			
) Inspector	Derek Haught	1		(c) Coal Les	ssee with Decla	aration	
Address	P.O. Box 85			Name			
	Smithville, WV	26178		Address			
Telephone	304-206-7613			11001700			
rolophono					-		
Application a Department of attached Form	nd accompanying doc of Environmental Prote	uments for a per ection, with responses is notice, the App	rmit to plug ect to the w plication, and	and abandon a vell at the location of the plat have be	well with the Chief n described on the een mailed by reg	of the Office of e attached App ister or certified	or has filed the Notice and foil and Gas, West Virginia lication and depicted on the mail or delivered by hand to the Chief.
	TH OF PENNSYLVANIA	Well Operator		NX Gas Comp		aile 40	Shotstones
Lori L. Wall	ker, Notary Public	Its:	P	ermitting Supe	ervisor		
Richhill Twr	o., Greene County Expires Feb. 23, 2015	Address	2	00 Evergreene	Drive		ECEIVE
MEMBER, PENNSYLVAN	IA ASSOCIATION OF NOTARIE			Vaynesburg, P.	A 15370	Office	of Oil 8 amounts
	010	Telephone	_7	24-6271492			STEP I
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	THE PARTY OF THE P	11/15	dayof	Augi	124	2014	and the second of the second o
ubscribed and s	worn before me this	1,74	day of	Jung	19 4	2014	David V
	MOUN	Waln	01.	-	Notan	Public VV V	Dela S
ly Commission I	Expires		1-01111	au 73	2015	Environ	ime de la composition della co
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oil and Gas Privacy	Notice						180 mm
in unu oas r nvac)	110000						
							r regulatory duties. Your

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 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 Officer at depprivacyofficer@wv.gov.

WW-4B

API No. 47-103-01822
Farm Name Koontz, Ruth L.
Well No. #W-2

INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

The well operator names on the obverse side of the WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil and Gas.

This notice and application is given to you in order that your respective representative may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: if you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner or Lessee for plugging" prior t the issuance of this plugging permit.

WAIVER

complied with all applicable requirements of the	ocation, provided, the well operator has Vest Virginia Code and the governing
Attume My June Date 9/4/14 Signature Date	WV Determinent of CNX RCPCALC OIL and Gas By ANTHONY M DIETERSKALL Its DISTRICT LING MINANGER WV Department of Environmental Protection

10/31/2014

Office of Oil and Gas

Office of Oil and Gas

SEP 19 7014

SEP 19 7014

SEP 19 7014

Environmental Protection

SENDER: COMPLETE THIS SECTION ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: Michau L. 3. Ruth L. Koontz	A. Signature A. Signature A. Signature A. Agent Address B. Received by (Printed Name) D. Is delivery address different from item 1? If YES, enter delivery address below: No		
item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailplece, or on the front if space permits. 1. Article Addressed to:	B. Received by (Printed Name) D. Is delivery address different from item 1? Agent Address Agent Agent Address Address D. Date of Deliving Agent Address Pagent Address Address Pagent Agent Address Address Pagent Address Address Pagent Address Address Pagent Address Address		
	2. is delivery described amortality from them 1.		
Michael L. 3. Ruth L. Koontz			
P.O. Box 26581			
Littleton, WV 26581	3. Service Type ☐ Certified Mail® ☐ Priority Mail Express™ ☐ Registered ☐ Return Receipt for Merchandi ☐ Insured Mail ☐ Collect on Delivery		
	4. Restricted Delivery? (Extra Fee) ☐ Yes		
SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY		
SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece,	A. Signature X		
or on the front if space permits.	D. Is delivery address different from item 1? Yes		
1. Article Addressed to: Derek Haught Tho. Box 85	If YES, enter delivery address below: □ No		
	3. Service Type		
C			
Smithville, WV 26178	☐ Certified Mail® ☐ Priority Mail Express™ ☐ Registered ☐ Return Receipt for Merchandis ☐ Insured Mail ☐ Collect on Delivery		

PS Form 3811, July 2013

Domestic Return Receipt

WW-9 Rev. 5/08

Page	of	
API Number 47 - 103	 01822	
Operator's Well No. W-2		

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 N	Name CNX C	as Company	, LLC		OP Code _4	194458046		
Watershed	WV Fork F	ish Creek of F	ish Creek	Quadrangle	Littleton			
Elevation	1342.27		County Wetzel		District	Clay		
Descriptio	n of anticipate	ed Pit Waste: N	A - will use mud	trucks to co	ontain all drill	ling muds		
Will a synt	thetic liner be	used in the pit?	N/A ,					
Proposed I		od For Treated P						
		 Land Applicati Underground I 	on njection (UIC Permit)	Number)	
		Reuse (at API	Number)	
	×	Off Site Disppe Other (Explain	osal (Supply form WW No pits	/-9 for disposa	location)			
Proposed V	Work For Whi	ch Pit Will Be Us	sed:				0	
	4,125,10	Drilling	-	Swabb	7 . 7		VmH 9-3-14	
	×	Workover Other (Explain	No nits	Pluggi	ng		9-3-14	
	-	_ Other (Explain					-	
provisions law or regular I application obtaining to penalties for	of the permit ulation can lea certify under in form and a the information or submitting	are enforceable of to enforcement penalty of law to attachments the on, I believe that false information, ture	that I have personally ereto and that, based the information is truincluding the possibility.	examined and on my inquir ie, accurate, a ty of fine or in	am familiar wit y of those indiv nd complete. I	eneral permit and/or h the information s viduals immediately	submitted on this responsible for	
Company (Official (Type	ed Name) <u>Fri</u>	Ka L Whetst	fore				
Company (Official Title_	Supervisu	- Pernitting				_	
Com n Subscribed	and sworn be	th of Penns fore me this	gravania a	Deplem	Count	Public Righ	WEALTH OF PENNSYLVA Notarial Seal L. Walker, Notary Public hill Twp., Greene County	
My commi	ission expires_	Feb	uary 23,	2015		EWILOULE REMISOULE	nission Expires Feb. 23, 2015 STUANIA ASSOCIATION OF NOT	AP*
						Environ	10/31/201	4

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Operator's Well No.	W-7

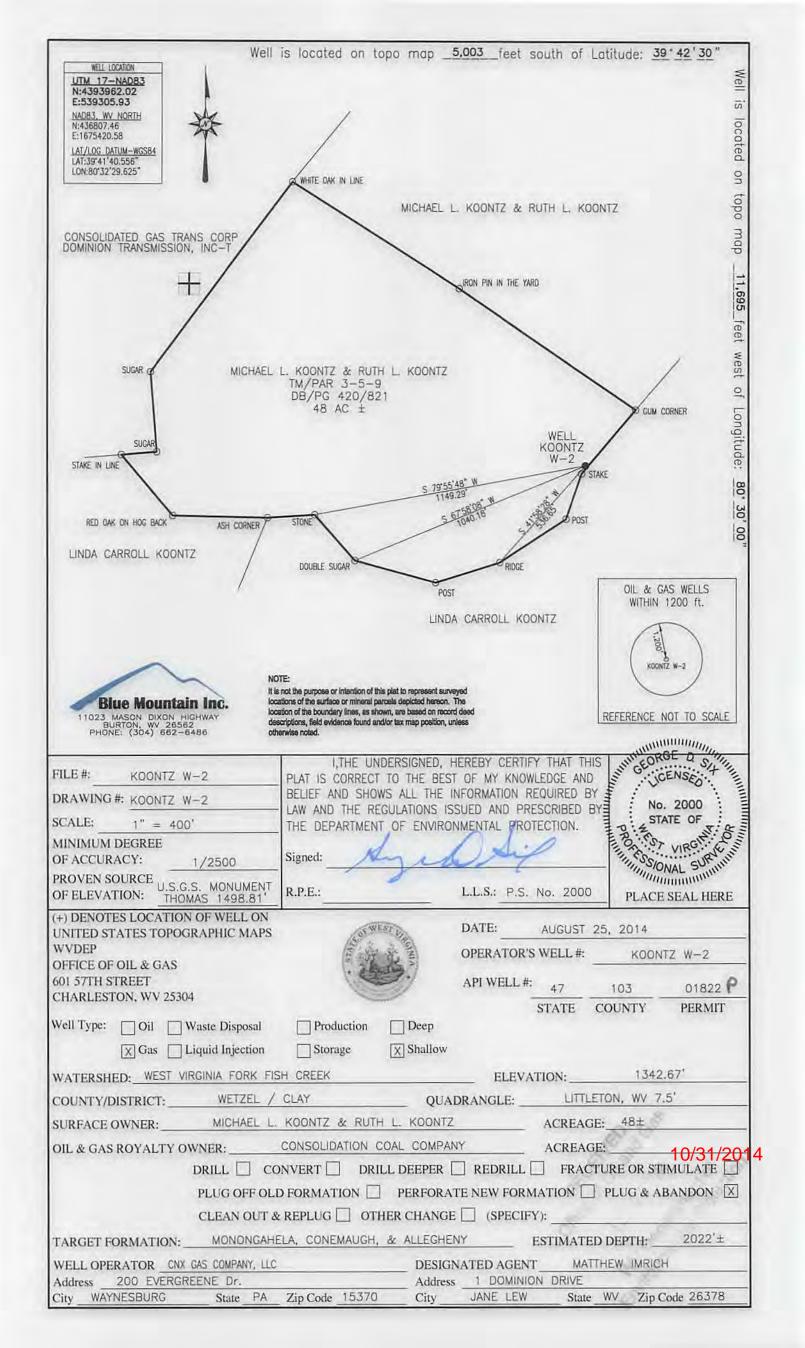
		LEGEND	
Property Boundary		Diversion Little 1111	minimum.
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Existing Fence — X —	× — × —	Wei Spoi &	
Planned Fence / /	- /-	Drain Pipe with size in inches	— ® —
Stream	7	→ Waterway ← ← ←	$\Leftrightarrow \Leftrightarrow \Leftrightarrow \Leftrightarrow$
Open Ditch	-···	Cross Drain	1111111111
Rock ESESSE		Artificial Filter Strip XXXX	XXXXXXXXXXXX
North N		Pit: cut walls	
Buildings		Pit: compacted fill walls	The state of the s
Water wells		Area for Land Application of P	it Waste
Drill site		E	
Fertilizer (10-20-20 or equ	ivalent) 500		
_{Mulch} hay or straw	2	Γons/acre	
tyruren			
		Seed Mixtures	
Area I	Ede La	Are	
	lbs/acre	Seed Type	lbs/acre
Tall Fescue	40	Tall Fescue	40
Landino Clover	5	Landino Clover	5
Attach: Drawing(s) of road, location,pit and	proposed area for lan	d application.	
Photocopied section of involved 7.5	topographic sheet.		
Plan Approved by:			
Commenter			
Comments:			
01 10 7	u dřie	Date: 9-3-19	
Title: Oil + Ger Ing	DECTY	Date: 1-5-79	
Field Reviewed?) Yes) No	

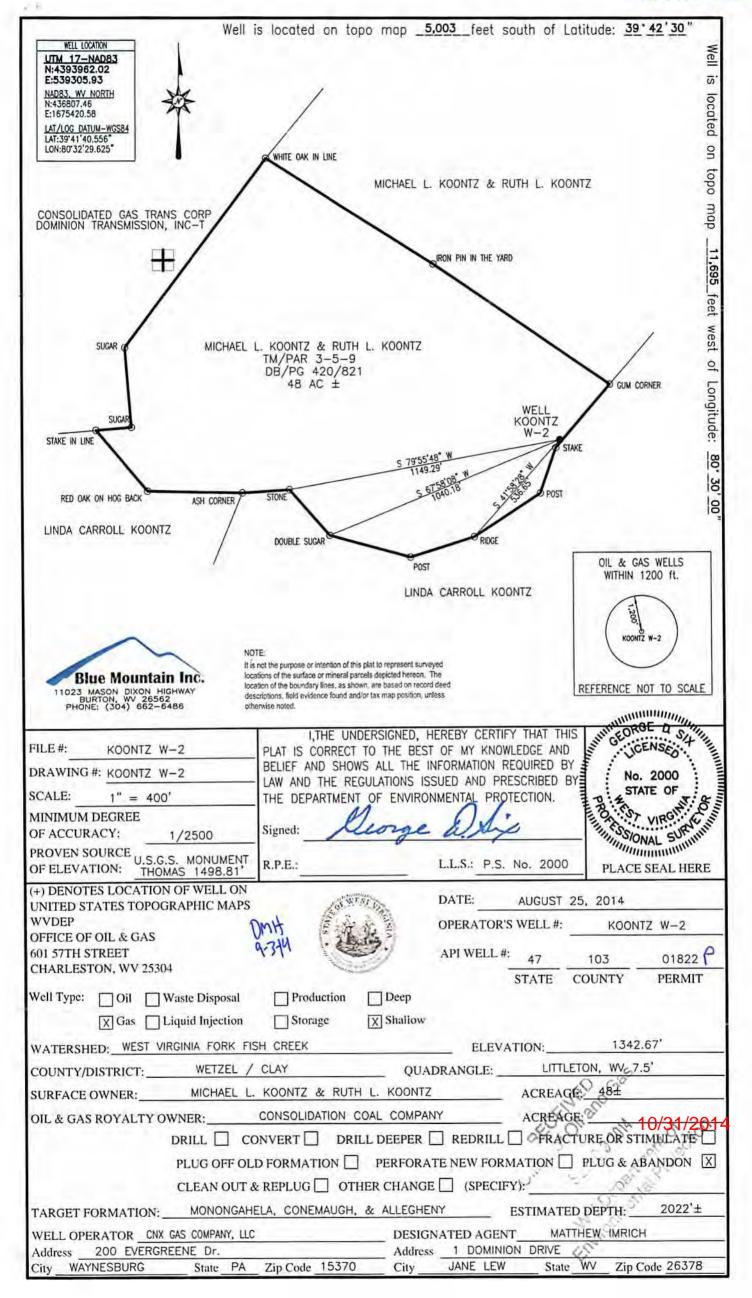


\$ - KOOUTZ W- 2 539306 € 4393962 N

	-	
	1.	
Measure	ment Result	

0.4km 0.2mi





10/31/2014

October 24, 2001 Date: WR-35 API#: 47-103-01822 State of West Virginia Department of Environmental Protection Office of Oil and Gas Well Operator's Report of Well Work Operator Well No.: Wetzei County CBM Well No. W-2 Ruth L. Koontz Farm Name: Quadrangle: Littleton Elevation: 1342.27' ± Location: County: Wctzel District: Clay 30 Sec. 39_ Deg. 42 Min. Latitude: 5050.0' Feet South of Longitude: 11,736' Feet West of 00 Sec. 30 Min. 80 Dcg. Company: Consol Energy, Inc. (North) Cement Fill Left In Casing & Used In Drilling Well Up Cu. Ft. Tubing 30, GRTD 1800 Washington Road 11 3/4" 30' Address: 858.50 212 858.50 8 5/8" Pittsburgh, PA 15241 2035.30 2035.30° 431 5 1/2" Edwin L. Merrifield Agent: Inspector: Randal Mick Date Permit Issued: 5/11/01 Date Well Work Commenced: 5/21/01 7/3/01 Date Well Work Completed: Verbal Plugging: N/A Date Permission granted on: Rig Cable Rotary 2095 Total Depth (feet): N/A Fresh Water Depth (ft.): 30 ZUDI Salt Water Depth (ft.): N/A WY DEPRIMERY C Is coal being mined in area (N/Y)? No Coal Depths (ft.): 832, 1080, 1186, 1651, 1812 and 1896 OPEN FLOW DATA REFER TO ATTACHMENTS B & C Pay zone depth (ft) **Producing formation** Bbl/d MCF/d Oil: Initial open flow Gas: Initial open flow Bbl/d Final open flow MCF/d Final open flow Hours Time of open flow between initial and final tests psig (surface pressure) after Hours Static rock pressure Pay zone depth (ft) Second producing formation Bbl/d Oil: Initial open flow MCF/d Gas: Initial open flow Bbl/d Final open flow MCF/d Final open flow Time of open flow between initial and final tests Hours psig (surface pressure) after Hours Static rock pressure 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 Office of Oll and Office of Oll and Office of Oll and Office of Oll and Office of Old SEP OF COMPONION OF THE OLD OF THE OLD OFFICE OF THE OLD OFFICE OF THE OLD OFFICE OF REFER TO ATTACHMENTS A, B & C ENCOUNTERED BY THE WELLBORE.



Erika Whetstone Supervisor-Permitting Waynesburg, PA 15370 (724) 627-1492

CN:GAS

August 14, 2014

West Virginia Department of Environmental Protection Office of Oil and Gas 601 57th Street, SE Charleston, WV 25304

Plugging Permit Application - Well "Koontz, Ruth #W-2"

Dear Sir or Madam,

Enclosed is the plugging permit application for the above referenced well. This well is one of many to be plugged this year to comply with CNX Gas Company's consent order.

If any further information or correspondence is required, please contact me at (724)627-1492 or ErikaWhetstone@consolenergy.com.

Sincerely,

Erika Whetstone

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Office of Oil and

SEP 0 9 2014

WV Department