

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

September 29, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-6100997, issued to NNE RESOURCES 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.

Operator's Well No: N. P. FETTY 3

Farm Name: EDDY, MARK & HARRY

API Well Number: 47-6100997

Permit Type: Plugging Date Issued: 09/29/2015

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.

WW-4B Rev. 2/01

1) Date 8/3			,	20 15	
2) Operato:					
Well No	NP Fett	y 3			
3) API Well	L No.	47-061		- 00997	

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

5)	Location: Elevation 1,578 ft.	Watershed Dunkard Creek
-/	District Clay	County Monongalia Quadrangle Blacksville
6)	Well Operator NNE Resources LLC	7) Designated Agent Zack Arnold
	Address 707 Virginia Street E., Suit	
	Charleston, WV 25301	Morgantown, West Virginia 26501
8)	Oil and Gas Inspector to be notifi Name Gayne Knitowski	ed 9)Plugging Contractor Name TBD
	Address P.O. Box 2	Address
	The state of the s	
	Perform Necessary earth work to establish a Ensure all necessary E&S controls are insta RIH with open ended tubing to determine P	lled BTD
	Work Order: The work order for the Perform Necessary earth work to establish a Ensure all necessary E&S controls are install.	Illed BTD Inimum of 150% of casing string weight s much casing as possible Office of Oil & Gas
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10/02/2015



NP Fetty 3 Monongalia County, WV API Number: 4706100997 AFE Number: TBD Plugging Procedure

June 17, 2015

Discussion

Approval is requested to perform the initial plugging on the NP Fetty 3 Well. The NP Fetty 3 is a vertical well located in Monongalia County, WV. For this procedure, the TD of the NP Fetty 3 has been estimated to be approximately 2,594' based off of averages from nearby wells whose TD values were known. Production from this well has been very low for numerous years. The NP Fetty 3 is recommended to be plugged and abandoned.

Plug and abandonment procedure:

- 1. Perform necessary earth work to establish access and work area for rig
- 2. Ensure all necessary E&S controls are installed
- 3. RIH with open ended tubing to determine PBTD
- 4. Attempt to remove all casing by pulling a minimum of 150% of casing string weight
- 5. If casing will not pull out, cut and remove as much casing as possible
- 6. Spot expandable cement from PBTD to 100' below coal to set a solid cement plug
- 7. Set a solid cement plug 100' above coal
- 8. WOC expandable cement to harden
- 9. Top off well to surface with class A cement with no more than 3% CaCl2 and no other additives
- 10. Place a well monument with API number
- 11. Reclaim site

Well Record Procedure

NNE Resources LLC researched the proposed well for plug and abandonment using the following information centers:

Office of Oil & Gas

- •The DEP office at 601 57th Street, Charleston, WV 25304.
- •The DEP online database for Oil and Gas Wells for production and well data.
- ·Titlemaps.com for lease information.
- ·Research well files provided by previous operator

AUG 1 9 2015

WELL DATA

Location (Surface)	Lat. 39* 38.7583	Long. 80* 076601
TD*		2,594'
PBTD		NA
Packer		NA
Marker Joint		NA

The actual TD of this well is unknown, so it has been estimated to be approximately 2,594' based off known TD values for nearby wells.

CASING AND TUBULAR DATA

STRING	SIZE	WEIGHT/GRADE	DEPTH*	THREAD	TOC
Surface	10"	N/A	572'	N/A	N/A
Intermediate	8 1/4"	N/A	828*	N/A	N/A
Intermediate	6 5/8"	N/A	1,580	N/A	N/A
Production	5 3/16"	N/A	1,868	N/A	N/A

The casing depths used in this procedure are estimated values obtain from averaging the depths from the other plugging procedures which contained known depth values for wells close to this one. 150' cement plugs at the estimated depths where casing size changes to increase the likelihood of covering the actual depths. The 8 1/4" casing setting depth remained fairly consistent between wells so a 100' plug will be used as it was for the wells that had known setting depths.

CAPACITIES

SIZE	WEIGHT	CAPACITY (GAL/FT.)	CAPACITY (BBL/FT.)
10*"	N/A	4.192	0.0998
8 1/4*"	N/A	2.738	0.0652
6 5/8"	N/A	1.536	0.0365
5 3/16***	N/A	1.038	0.0247
2 3/8"	4.7#	0.16239	0.00387

SIZE	WEIGHT	CAPACITY (CU FT/FT.)	CAPACITY (BBL/FT.)
10*"	N/A	0.5603	0.0998
8 1/4*"	N/A	0.3659	0.0652
6 5/8"	N/A	0.2052	0.0365
5 3/16*"	N/A	0.1387	0.0247
2 3/8"	4.7#	0.02171	0.00387

^{*} The asterisks represent sizes where estimates were used to produce the capacity data. For the 10" casing the capacity of a 35.75#/ft 10 3/4" casing was used. For the 8 1/4" casing capacities a 20#/ft 8 5/8" casing was used. For the 5 3/16" casing capacities a 13#/ft 5 1/2" casing was used.

DRIVING DIRECTIONS

From Morgantown:

Travel on US-19 N to Star City

Continue on US-19 N for 3-4 miles

Turn Left onto Route 7

Travel down Route 7 for approximately 5 miles

Pass the small town of Core and turn left on Pedlar Run

Stay left on that road

At the top of Behler Hill turn left at the intersection

Park where the road splits to the right and left

Walk about 1/4 of a mile down the road to the left and pump jack is on the right of the road

Received Office of Oil & Gas

AUG 1 9 2015

Gayrie Knitowski

Inspectors Signature

11791

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WW-4A Revised 6-07

1) Date:	8/3/15	
2) Operator	r's Well Number	
NP Fetty 3		

3) API Well No.: 47 -

061 - 00997

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

		(a) Coal Operator
(a) Name	Eddy Howard & Myra D	Name Consolidation Coal Company Attn:Analyst
Address	1481 Pedlar Run Rd	Address CNX Center, Engineering and Operations Support-Coal
45.44	Core WV, 26541	1000 CONSOL Energy Drive. Canonsburg, PA 15317-6506
(b) Name		(b) Coal Owner(s) with Declaration
Address		Name
		Address
(c) Name		Name
Address	-	Address
	-	
6) Inspector	Gayne Knitowski	(c) Coal Lessee with Declaration
Address	P.O. Box 2	Name
	Moundsville, WV 26041	Address
Telephone	304-546-8171	
well i (2) The r	its and the plugging work order; and plat (surveyor's map) showing the well location you received these documents is that you have right	Form WW-4B, which sets out the parties involved in the work and describes the on on Form WW-6. The sets out the parties involved in the work and describes the one of the sets of the set
The reason However, ye Take notice accompany Protection, the Applica	its and the plugging work order; and plat (surveyor's map) showing the well location you received these documents is that you have rigiou are not required to take any action at all. that under Chapter 22-6 of the West Virginia Coding documents for a permit to plug and abandon a visit respect to the well at the location described or	the characteristic application which are summarized in the instructions on the reverses side the the undersigned well operator proposes to file or has filed this Notice and Application and well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmenta in the attached Application and depicted on the attached Form WW-6. Copies of this Notice or certified mail or delivered by hand to the person(s) named above the Chief
The reason However, ye Take notice accompany Protection, the Applica	its and the plugging work order; and blat (surveyor's map) showing the well location you received these documents is that you have rigiou are not required to take any action at all. In that under Chapter 22-6 of the West Virginia Code ing documents for a permit to plug and abandon a with respect to the well at the location described or ation, and the plat have been mailed by registered umstances) on or before the day of mailing or delive	the the undersigned well operator proposes to file or has filed this Notice and Application and well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmenta in the attached Application and depicted on the attached Form WW-6. Copies of this Notice or certified mail or delivered by hand to the person(s) named above the Chief. Office of Oil & Gas Alig. 1 9 2015
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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 (2/15)

API Number	47 - 061	_ 00997
Oner	ator's Well No.	NP Fetty 3

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

LEGIDA COTTINGS DISPOS	SAL & RECLAMATION PL	JAN
Operator Name NNE Resources LLC	OP Code	494511469
Watershed (HUC 10) Dunkard Creek	Quadrangle Blacksville	
Do you anticipate using more than 5,000 bbls of water to complet	e the proposed well work?	Yes No V
Will a pit be used? Yes No V		
If so, please describe anticipated pit waste:		
Will a synthetic liner be used in the pit? Yes 1	No 🚺 If so, what inl.	?
Proposed Disposal Method For Treated Pit Wastes:		
Land Application Underground Injection (UIC Permit N Reuse (at API Number See Attachment Off Site Disposal (Supply form WW-9 Other (Explain	for disposal location)	
Will closed loop system be used? If so, describe:	See Attechment	
Drilling medium anticipated for this well (vertical and horizontal)!	Air, freshwater, oil based,	etc. Freshwater/gel
-If oil based, what type? Synthetic, petroleum, etc. N/A		····
Additives to be used in drilling medium? Bentonite		
Drill cuttings disposal method? Leave in pit, landfill, removed off	site, etc. Remove Offsite	
-If left in pit and plan to solidify what medium will be use	d? (cement, lime, sawdust)	
-Landfill or offsite name/permit number? See Attachment		
Permittee shall provide written notice to the Office of Oil and Gas West Virginia solid waste facility. The notice shall be provided with where it was properly disposed.		
I certify that I understand and agree to the terms and cond on August 1, 2005, by the Office of Oil and Gas of the West Virgin provisions of the permit are enforceable by law. Violations of an law or regulation can lead to enforcement action. I certify under penalty of law that I have personally exapplication form and all attachments thereto and that, based of obtaining the information, I believe that the information is true, penalties for submitting false information, including the possibility	nia Department of Environme y term or condition of the g amined and am familiar wi n my inquiry of those indi- accurate, and complete. I	ental Protection. I understand that the general permit and/or other applicable ith the information submitted on this ividuals immediately responsible for
Company Official Signature		AUC 1 0 0045
Company Official (Typed Name) Zack Arnold		AUG 1 9 2015
Company Official Title General Manager-Operations		WV Department of
- 13		Environmental Protection
Subscribed and swprn before me this 10+th day of Al	count 2	20 <u>15</u> mmmmmmmm
Kush	O Notar	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINA Krista M. Virnon
My commission expires two Is 2	J 7 0	22 Poinse Ortne Morgantown, WW 20500 My Commission Exprises January 28, 2020

Form WW-9		Operator's Well No.	NP Fetty 3
Proposed Revegetation Treatment: A		Prevegetation pH TBD	
Lime 2 Ton	s/acre or to correc	t to pH 7	
Fertilizer type 19-19-19			
Fertilizer amount 500		lbs/acre	
Mulch 2		Tons/nere	
		Sced Mixtures	
Temporary		Permanent	
Seed Type lbs	/acre	Seed Type	lbs/acre
Orchard Grass	46	Orchard Grass	46
Red Clover	8	Red Clover	8
Tertraploid Perennial R	ye 16	Tertraploid Perennial Rye	16
Timothy 15 Annual Rye	15	Timothy 15 Annual Rye	15
Photocopied section of involved 7.5' to Plan Approved by:	pographic sheet.	nd application (unless engineered plans including th	
		С	RECEIVED of Oil and Gas
			AUG 1 9 2015
		Env	VV Department of fronmental Protection
Fille: TNIPLETON	·····	Date: 8 10/2015	
Field Reviewed?	Yes () No	

Attachment A to WW-9

Northeast Natural Energy LLC ("NNE") plans to utilize a closed loop process for its drilling of the NP Fetty 3 well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

NP Fetty 3 Drill Cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal:

- Westmoreland Landfill (Tervita) Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) Bridgeport, WV (Permit # SWF 103298)
- Max Environmental Yukon, PA (PAD004835146 and 301071)
- Max Environmental Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) Export, PA (Permit # 101421)

NNE plans to reuse and recycle all flowback fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved to accept waste at time of disposal:

- Fairmont Brine Processing (WV NPDES #0116408)
- Green Hunter M. E. Elder 1 Disposal Well (Permit # 47-085-05151)
- Green Hunter Mason 1 Disposal Well (Permit #47-085-09721)
- Green Hunter Warren Disposal Well (Permit #34-121-2-3995)
- Green Hunter Travis Unit Disposal Well (Permit #34-121-2-4086)
- Viking Energy Corporation 20320 Disposal Well (Permit#47-039-02210)
- Ohio Oil Gathering Killbuck Disposal Well (Permit #34-075-24527)
- Ohio Oil Gathering Moran Disposal Well (Permit #34-089-24792)
- Ohio Oil Gathering Bells Run Disposal Well (Permit #34-167-29395)
- Ohio Oil Gathering Long Run Disposal Well (Permit #34-167-29658)
- Ohio Oil Gathering Newell Run Disposal Well (Permit #34-167-29685)
- Appalachian Oil Purchaser Greens Run Disposal Well (Permit #2D0732540)
- Appalachian Oil Purchaser BW#4 Disposal Well (Permit # 200732523)

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WV Department of Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

Earl Ray Tomblin Charleston, West Virginia 25305-0430 • (304) 558-3505
Governor

Paul A. Mattox, Jr., P. E. Secretary of Transportation/ Commissioner of Highways

August 21, 2015

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304

Subject: DOH Permit for the NP Fetty No. 3 Well Site, Monongalia County

Dear Mr. Martin,

Northeast Natural Energy LLC has been issued permit #04-2015-0835 to access the State Road for a well site located off of Monongalia County Route 37 SLS.

The operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Dave McDougal

Northeast Natural Energy Corporation

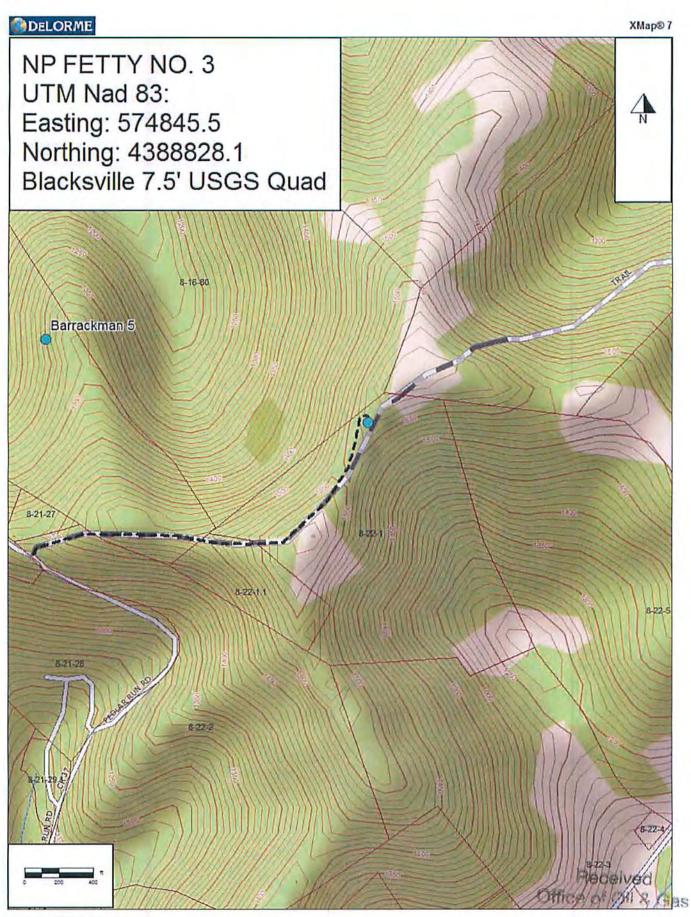
CH, OM, D-4

File

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WV Department of Environmental Protection



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10/02/2015

WW-7 8-30-06



West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LO	CATION FORM: GPS	
API: 47-061-00997	WELL NO.: 3	
FARM NAME: NP Fetty		
RESPONSIBLE PARTY NAME:	NNE Resources LLC	0
COUNTY: Monongalia		
QUADRANGLE: Blacksville	e, WV	
SURFACE OWNER: Howard		
ROYALTY OWNER: Northe	ast Natural Energy, I	LLC, et al
UTM GPS NORTHING: 4388		
UTM GPS EASTING: 574845		_{ON:} 1,578'
height above mean sea le 2. Accuracy to Datum – 3.0 3. Data Collection Method: Survey grade GPS: Post Pr	ias will not accept GPS coordinate e: 17 North, Coordinate Units: me evel (MSL) – meters. 05 meters crocessed Differential	s that do not meet
Mapping Grade GPS X : Pos	ime Differentialt Processed Differential	AUG 1 9 2015
	al-Time Differential X	
4. Letter size copy of the t I the undersigned, hereby certify thi belief and shows all the information prescribed by the Office of Oil and	required by law and the regulation	knowledge and
2000	General Manager-Operations	7 AUG 15
Signature	Title	Date

10/02/2015