

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

June 24, 2016

WELL WORK PLUGGING PERMIT Plugging

This permit, API Well Number: 47-6101002, 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: J. WILDMAN 29

Farm Name: EDDY, MARK & HARRY

API Well Number: 47-6101002 Permit Type: Plugging

Date Issued: 06/24/2016

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

WV Department of Environme06/24/2016on

WW-4BRev. 2/01

1) Date June 08	, 2016
2) Operator's	
Well No. J. Wildman 29	
3) API Well No. 47-061	- 01002

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

)	Location: Ele	evation 1,495 feet	Watershed Dunkard Creek
	Di	Strict Clay	County Monongalia Quadrangle Osage 7.5'
)	Well Operator	NNE Resources LLC	7) Designated Agent Zack Arnold
	Address	707 Virginia Street East, Suite 1200	Address 48 Donley Street, Suite 601
		Charleston, WV 25301	Morgantown, WV 26501
	Oil and Gas In Name Gayne H	nspector to be notified Knitowski	9)Plugging Contractor Name TBD
	Address P.O	. Box 108	Address
	Gori	mania, WV 26720	
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	Ensure all ned Perform necess RIH with oper Attempt to rem	cessary erosion and sedicary earth work to establish and ended tubing to determinate all casing by pulling a	iment control devices are in place. access and work area for rig and equipment. nine PBTD. a minimum of 150% of casing string weigh
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J. Wildman 29
Clay District, Monongalia County, WV
API Number: 47-061-01002
AFE Number: TBD
Plugging Procedure

May 10, 2016

Discussion

Approval is requested to perform the initial plugging on the J. Wildman 29 well. The J. Wildman 29 is a vertical shallow well located in Clay District, Monongalia County, WV. This well was drilled to a depth of approximately 2,000'. Production from this well has been very low for numerous years. The J. Wildman 29 is recommended to be plugged and abandoned.

Plug and Abandonment Procedure:

- 1. Ensure all necessary erosion and sediment control devices are in place.
- 2. Perform necessary earth work to establish access and work area for rig and equipment.
- 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. Log well to determine casing and coal depth.
- 7. Spot expandable cement from PBTD to 100' below coal to set solid cement plug.
- 8. Set a solid cement plug 100' above coal.
- 9. WOC expandable cement to harden.
- 10. Top off well to surface with Class A cement with no more than 3% CaCl2 and no other additives.
- 11. Place well monument with API number on spot of well.
- 12. Reclaim site.
- 13. After 70% growth is observed remove any remaining erosion and sediment controls.

SCOPE OF OPERATION

- 1. Safety is the highest priority. Control costs and avoid unnecessary expenditures.
- 2. Attempt to cut or pull all recoverable casing.
- 3. TIH with $1\frac{1}{2}$ " tubing to estimated TD of 2,000'.
- 4. Pump cement and gel plugs per state requirements.
- 5. Bury and plat a well monument with WV State API number.

PROCEDURE

- 1) Safety is the number one priority. Well site safety meetings will be held before each major operation
- 2) MIRU construction equipment and remove any tanks, separators, well lines, meter runs, exc.
- 3) MIRU service rig & needed BOP equipment
- 4) TOOH strapping rods and tubing
- 5) TIH strapping 1½" tubing to PBTD'
- 6) Pump 20 sks of Class A cement (150' cement plug), displace cement plug
- 7) TOOH with 1½" tubing
- 8) RIH with Mechanical Ripper on sand line to 1,600' and attempt to rip and retrieve 5 3/16" casing.
- 9) If Mechanical Ripper is not successful, contact NNE representative to discuss wire line options
- 10) TOOH with 5 3/16" casing and tally out
- 11) RIH and perforate 81/4" casing
- 12) RIH with Mechanical Ripper on sand line to rip 81/4" casing above free point and perforations
- 13) TIH with 1½" tubing
- 14) Pump cement from 1,650' to above 81/4" perfs
- 15) TOOH with 1½" tubing

- 16) TOOH with 81/4" casing
- 17) RIH with 11/2" tubing
- 18) Cement to surface
- 19) Cut all casing 36 inches below GL. Install a monument to WV state requirements
- 20) RDMO all service equipment providers and reclaim location to WV State requirements

Well Record Procedure

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

- 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.

Well Data

Very little documentation exists on Wildman 29. Based on offset experience it is estimated that 5-3/16" production casing was run to a TD of approximately 2,000'. Surface casing is most likely 8-1/4" run to approximately 850'

Capacities

SIZE	WEIGHT	CAPACITY (GAL/FT)	CAPACITY (BBL/FT)	CAPACITY (CU FT/FT)
10*	N/A	4.192	0.0998	0.5603
8 1/4*	N/A	2.738	0.0652	0.3659
6 5/8*	N/A	1.536	0.0365	0.2052
5 3/16*	N/A	1.038	0.0247	0.1387
2 3/8*	4.7#	0.16239	0.00387	0.02171

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

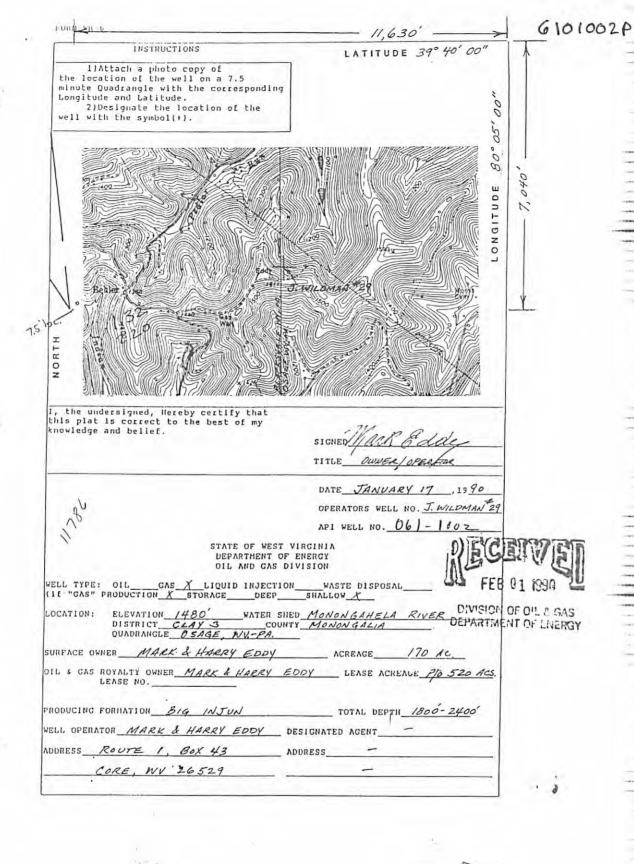
Driving Directions

From the Sheetz at the intersection of US Route 19 and State Route 19/24 in Star City travel north on US Route 19 for 1.63 miles. Turn left onto State Route 7 and travel 5.18 miles. Turn left onto State Route 37 (Pedlar Run) and travel 3.13 miles to State Route 37. Turn left onto State Route 37 and travel 0.32 miles to existing stone well road on the left. Travel on existing well road out ridge approximately 3700 feet to location.

RECEIVED
Office of Oil and Gas

JUN 10 2016

WV Depatrantol 6 Environmental Protection



Office of Oil and Gas

JUN 13 2016

Environmental Protection 06/24/2016

WW-4A Revised 6-07

1) Date: 06/08/	2016			
2) Operator's Well N J. Wildman 29	lumber			
3) API Well No.: 47 -	061	- 1	01002	

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

4)	Surface Ow	ner(s) to be served:	5) (a) Coal Operato	r
	(a) Name	Howard S. Eddy	Name	
	Address	1481 Pedlar Run Road	Address	
		Core, WV 26541		
	(b) Name	Cheryl G. Dean	(b) Coal Ov	wner(s) with Declaration
	Address	P.O. Box 325	Name	Murray Energy Corporation
		Pentress, WV 26544	Address	46226 National Road
				St. Clairsville, OH 43950
	(c) Name	Branson Raith Matheny	Name	Consol Mining Company LLC
	Address	1304 Pedlar Run Road	Address	CNX Center, 1000 Consol Energy Drive
		Core, WV 26541		Canonsburg, PA 15317
6) 1	nspector	Gayne Knitowski	(c) Coal Le	ssee with Declaration
	Address	P.O. Box 108	Name	
		Gormania, WV 26720	Address	
- 3	Telephone	304-546-8171		

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

-	Well Operator		
OFFICIAL SEA	By:	Zack Arnold	
OFFICIAL SEAL STATE OF WEST VIRGINIA	ets:	General Manager-Operations	
NOTARY PUBLIC	Address	707 Virginia Street East, Suite 1200	
156 Meadowrite Elsenhauer	=	Charleston, WV 25301	
Morgantown Manual Morgantown	Telephone	304-241-5752	
My Commission Expires Sep. 25, 202	112	ay of June, 2016	
Mul harmonic in the first subscribed and sworn before the first		Notary Public	
My Commission Expires 50	0. 25, 202	2	

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 pormal 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 WV Department of information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.

OFFICIAL SEAL
STATE OF WIST VIRGINIA
MOTARY PUBLIC
MAY Commission Expires Sep. 25, 2020

Carlo San James

WW-9 (2/15)

API Number	47 -	061	01002
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Operator's Well No. J. Wildman 29

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

FLUIDS/ CUTTINGS DI	SPOSAL & RECLAMATION PLAN
Operator Name NNE Resources LLC	OP Code 494511469
Watershed (HUC 10) Dunkard Creek	Quadrangle Osage 7.5'
Do you anticipate using more than 5,000 bbls of water to com	nplete the proposed well work? Yes No
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	No If so, what ml.? N/A
Proposed Disposal Method For Treated Pit Wastes:	
Land Application	
Underground Injection (UIC Per	
Reuse (at API Number See attachm	
Off Site Disposal (Supply form W	W-9 for disposal location)
one (Explain_	
Will closed loop system be used? If so, describe: N/A	
Drilling medium anticipated for this well (vertical and horizon	ontal)? 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, remove	ed offsite, etc. Remove offsite
-If left in pit and plan to solidify what medium will	be used? (cement, lime, sawdust)
-Landfill or offsite name/permit number? N/A	
D 10 1 1 10 10	
	d Gas of any load of drill cuttings or associated waste rejected at any ed within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the West provisions of the permit are enforceable by law. Violations law or regulation can lead to enforcement action. I certify under penalty of law that I have persona application form and all attachments thereto and that, ba obtaining the information, I believe that the information is penalties for submitting false information, including the poss Company Official Signature Company Official Title General Manager-Operations	OFFICIAL SEAL Morgantown, WV 26505 My Commission Expires Sep, 25, 2020 My Commission Expires Sep, 25, 2020
Subscribed and sworn before me this 8 day of	June , 20 16
Mad huhm	Notary Public
My commission expires Sep. 25, 2020	06/24/20

		6101002
Operator's W	ell No. <u>J. Wild</u>	man 29
Prevegetation pH	TBD	
Permai	nent	
Seed Type	lbs/ac	re
Grass	46	
/er	8	
oid Perennial	Rye 16	
5 Annual Ry		
ngineered plans inc		ò have been
		····
_		
		<u></u>
		

	ment: Acres Disturbed U.O	0+- Prevegetation	H TBD
Lime <u>2</u>	Tons/acre or to correct	to pH 7	
Fertilizer type 19-1	9-19		
Fertilizer amount 20	00	lbs/acre	
Mulch 2	,	Tons/acre	
		Seed Mixtures	
Тег	mporary	Perm	anent
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	46	Orchard Grass	46
Red Clover	8	Red Clover	8
Tertraploid Peren	nial Rye 16	Tertraploid Perennia	al Rye 16
Timothy 15 Annual	Rye 15	Timothy 15 Annual F	tye 15
	/ed /.5' topographic sheet.		
Plan Approved by:	1 augus) K	u P	
Plan Approved by:	1 aum D K Arap	uP	
Plan Approved by:	1 augus) K	n P	
Plan Approved by:	1 augus) K		
Plan Approved by:	1 augus) K		
Photocopied section of involved by: Comments:	1 augus) K		
Plan Approved by:	1 augus) K	Date: 6/9/2016	PECE) Office of Ol

JUN 10 2016

Attachment A to WW-9

Northeast Natural Energy LLC ("NNE") plans to utilize a closed loop process for the plugging of the J. Wildman 29 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.

J. Wildman 29 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:

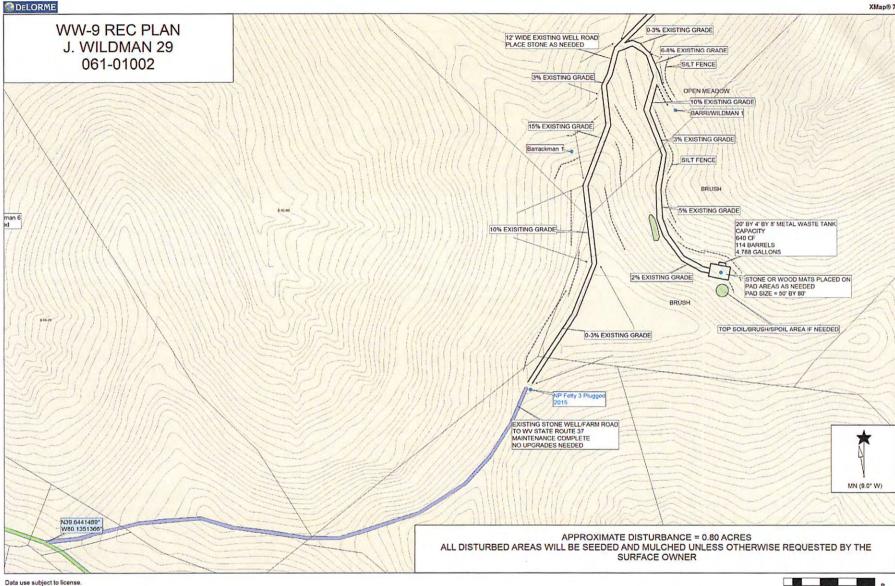
- Westmoreland Landfill (Tervita) Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) Bridgeport, WV (Permit # SWF 103298)
- Max Environmental Yukon, PA (PAD004835146 and 301071)
- Max Environmental Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal)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

NNE plans to reuse and recycle all 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) RECEIVED
- Appalachian Oil Purchaser BW#4 Disposal Well (Permit # 2D0732523) Office of Oil and Gas

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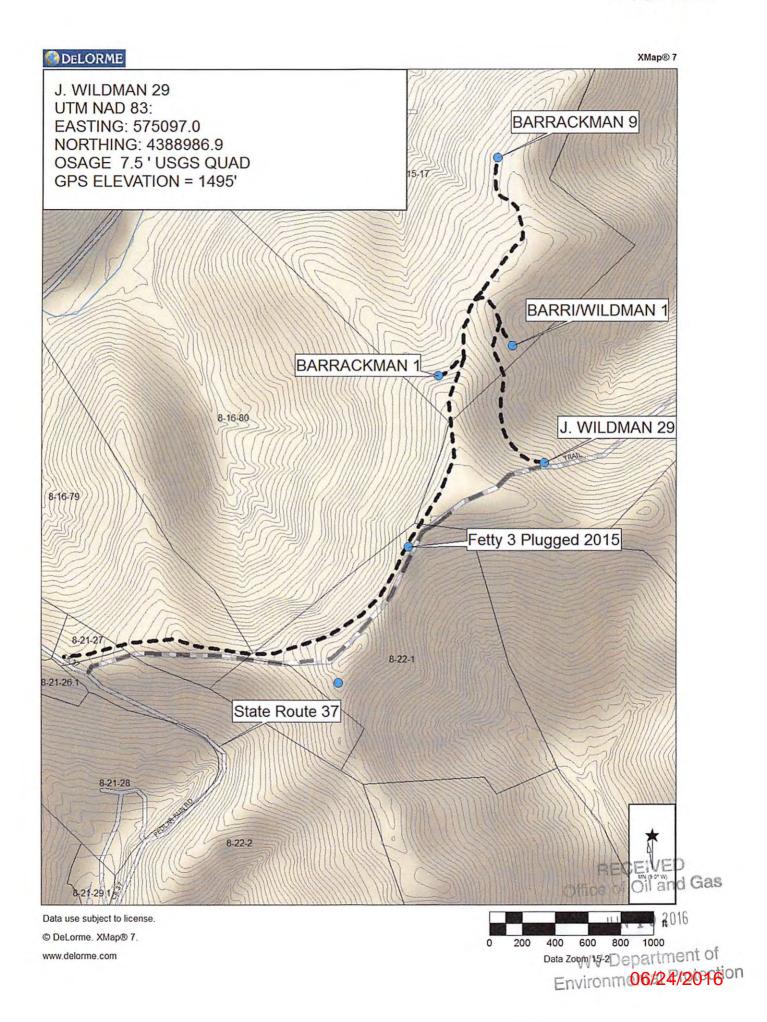




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XMap® 7





West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LO	CATION FORM: GPS	<u> </u>
_{API:} 47-061-01002	WELL NO.: 2	29
FARM NAME: J. Wildman		
RESPONSIBLE PARTY NAME:	NNE Resources LL	.C
COUNTY: Monongalia	DISTRICT: Cla	ay
QUADRANGLE: Osage 7.5	5'	
SURFACE OWNER: Howard S.	Eddy, Cheryl Gay Dean, Bra	anson R. Matheny
ROYALTY OWNER: Trio Petroleu	ım Corporation and Waco Oil and Ga	as Company, Inc., et al
UTM GPS NORTHING: 43889		
UTM GPS EASTING: 575097	7.0 GPS ELEVAT	TION: 1495'
preparing a new well location plat for above well. The Office of Oil and Gothe following requirements: 1. Datum: NAD 1983, Zono height above mean sea letter above mean sea letter above to Datum – 3.0 decorated above mean sea letter above mea	e: 17 North, Coordinate Units: mevel (MSL) – meters.	es that do not meet
	ime Differential	
Mapping Grade GPS X : Pos	t Processed Differential	
Rea	al-Time Differential X	
4. Letter size copy of the to I the undersigned, hereby certify this belief and shows all the information prescribed by the Office of Oil and the information prescribed by the Office of Oil and the Information prescribed by the the Information prescribed	required by law and the regulati	linaviladas and
Signature	Title	Date WV Department of WV Department of



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

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

Governor

Earl Ray Tomblin

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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Office of Oil and Gas

JUN 10 2016

WV Department of Environmental 4/8/6/6/6