



 west virginia department of environmental protection

Office of Oil and Gas
 601 57th Street, S.E.
 Charleston, WV 25304
 (304) 926-0450
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, March 27, 2019
 WELL WORK PLUGGING PERMIT
 Horizontal 6A Plugging

NORTHEAST NATURAL ENERGY LLC
 707 VIRGINIA STREET EAST
 STE 1200
 CHARLESTON, WV 25301

Re: Permit approval for KASSAY 6H
 47-061-01796-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.


 James A. Martin
 Chief

Operator's Well Number: KASSAY 6H
 Farm Name: PATTY A KASSAY
 U.S. WELL NUMBER: 47-061-01796-00-00
 Horizontal 6A Plugging
 Date Issued: 3/27/2019

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.

47-061-01796P

WW-4B
Rev. 2/01

1) Date January 23, 2019 **03/29/2019**
2) Operator's
Well No. Kassay 6H
3) API Well No. 47-061 - 01796

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production X or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1,534' Watershed Dunkard Creek
District Clay County Monongalia Quadrangle Blacksville

6) Well Operator Northeast Natural Energy LLC 7) Designated Agent Hollie M. Medley
Address 707 Virginia Street East, Suite 1200 Address 48 Donley Street, Suite 601
Charleston, WV 25301 Morgantown, WV 26501

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gayne Knitowski Name TBD
Address P.O. Box 108 Address _____
Gormanian, WV 26720

10) Work Order: The work order for the manner of plugging this well is as follows:
24" conductor was set at 40' and will be cemented back to surface.
A final monument will be placed.

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

Work order approved by inspector  Date 2/4/2019

WR-35
Rev. 8/23/13

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

API 47-061-01796 County Monongalia District Clay
Quad Blacksville Pad Name Kassay Field/Pool Name _____
Farm name Patty Kassay Well Number 6H
Operator (as registered with the OOG) Northeast Natural Energy LLC
Address 707 Virginia St. E., Suite 1200 City Charleston State WV Zip 25301

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4390167.9 Easting 569109.5
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1,534' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)

Date permit issued 3/30/2018 Date drilling commenced 6/08/2018 Date drilling ceased 6/09/2018
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft _____ Open mine(s) (Y/N) depths _____
Salt water depth(s) ft _____ Void(s) encountered (Y/N) depths _____
Coal depth(s) ft _____ Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) _____

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Reviewed by:

WR-35
Rev. 8/23/13

API 47-061 - 01796 Farm name Patty Kassay Well number 6H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	24"	40'	N	NA	NA	Y
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	4,500 psi grout	36.4		.75	27.27	CTS	8+
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 40' Loggers TD (ft) _____

Deepest formation penetrated _____ Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) _____

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

47-061-01796 P

03/29/2019

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WR-35
Rev. 8/23/13

API 47-061 - 01796 Farm name Patty Kassay Well number 6H

PERFORATION RECORD

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

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

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Please insert additional pages as applicable.

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API 47- 061 - 01796 Farm name Patty Kassay Well number 6H

PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd
GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

Please insert additional pages as applicable.

Drilling Contractor Lightning Energy Services LLC
Address 104 Heliport Loop Road City Bridgeport State WV Zip 26330

Logging Company _____
Address _____ City _____ State _____ Zip _____

Cementing Company _____
Address _____ City _____ State _____ Zip _____

Stimulating Company _____
Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Hollie M. Medley Telephone 304.212.0422
Signature Hollie M. Medley Title Regulatory Manager Date 1/31/2019

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WW-4A
Revised 6-07

1) Date: 1/23/2019
2) Operator's Well Number
Kassay 6H
3) API Well No.: 47 - 061 - 01796

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

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Patty Kassay</u>	Name _____
Address <u>1991 Daybrook Road</u>	Address _____
<u>Fairview, WV 26570</u>	_____
(b) Name <u>Mr. & Mrs. Samuel W. Matteo</u>	(b) Coal Owner(s) with Declaration
Address <u>404 Country Road</u>	Name <u>CONSOL Mining Company LLC</u>
<u>Fairview, WV 26570</u>	Address <u>1000 Consol Energy Drive</u>
	<u>Canonsburg, PA 15317-6506</u>
(c) Name <u>Precision Oil and Gas, Inc.</u>	Name <u>Murray American Energy</u>
Address <u>P.O. Box 884</u>	Address <u>46226 National Road</u>
<u>Bridgeport, WV 26330</u>	<u>St. Clairsville, OH 43950</u>
6) Inspector <u>Gayne Knitowski</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 108</u>	Name _____
<u>Gormanian, WV 26720</u>	Address _____
Telephone <u>304.546.8171</u>	_____


TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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
- (2) 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.

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	Well Operator	Northeast Natural Energy LLC
	By:	Hollie M. Medley <i>Hollie M Medley</i>
	As:	Regulatory Manager
	Address	707 Virginia Street East, Suite 1200 Charleston, WV 25301
	Telephone	304.212.0422

Subscribed and sworn before me this 31 day of January 2019
Hollie M Medley Notary Public
My Commission Expires 9-25-2020

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.

03/29/2019

WW-4B

API No. 47-061-01796 P
Farm Name _____
Well No. Kassay 6H

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

The well operator named on the obverse side of 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 & Gas.

This notice and application is given to you in order that your respective representatives 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 to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____ / owner X / lessee ____ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: 1-30-18

Mason Smith

By: Mason Smith
Its Coal, oil and gas relations manager

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03/29/2019

WW-9
(5/16)

API Number 47 - 061 - 01796
Operator's Well No. Kassay 6H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Northeast Natural Energy LLC OP Code _____

Watershed (HUC 10) Dunkard Creek Quadrangle Blacksville, WV

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain no pit waste will be encountered in this process)

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

-If oil based, what type? Synthetic, petroleum, etc.

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

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Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Hollie M. Medley

Company Official (Typed Name) Hollie M. Medley

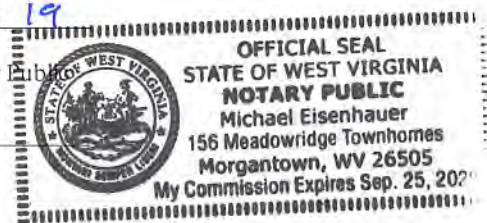
Company Official Title Regulatory Manager

Subscribed and sworn before me this 31 day of January, 20 19

[Signature]

Notary Public

My commission expires 9-25-2020



Operator's Well No. _____

Proposed Revegetation Treatment: Acres Disturbed 15.85 Prevegetation pH 5-7

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 300 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	46	Orchard Grass	46
Red Clover	8	Red Clover	8
Tetraploid Perennial Rye	16	Tetraploid Perennial Rye	16
Timothy 15	Annual Rye 15	Timothy 15	Annual Rye 15

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Maryland Smith*

Comments: _____

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Title: Inspector Date: 2/4/2019

Field Reviewed? () Yes () No

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

Operator Name: Northeast Natural Energy LLC
Watershed (HUC 10): Dunkard Creek Quad: Blacksville, WV
Farm Name: Kassay

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Fluids will not be discharged.

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

N/A

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

N/A

4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

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5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

N/A

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

N/A

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

N/A

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Signature: Hollimmedy

Date: 1-31-19

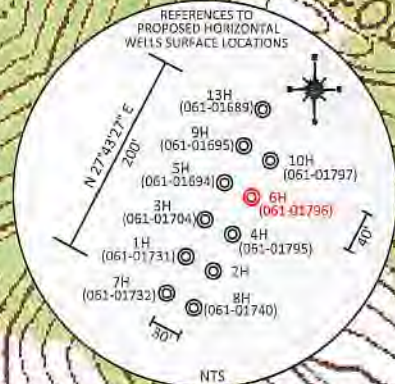
Northeast Natural Resources LLC.

Proposed Plugging of
KASSAY 6H (061-01796)
Clay District
Monongalia County, WV

TOP HOLE (NAD 83)
N) 422723.8
E) 1773009.4
LAT.) 39°39'30.7"
LONG.) 80°11'39.8"
DEC. LAT.) 39.658524
DEC. LONG.) 80.194378

TOP HOLE (NAD 27)
N) 422686.8
E) 1804446.4
LAT.) 39°39'30.4"
LONG.) 80°11'40.5"
DEC. LAT.) 39.658443
DEC. LONG.) 80.194581

TOP HOLE (UTM NAD 83)
N) 4390167.9
E) 569109.5



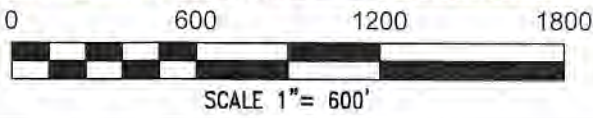
Gas Well

PATTY A, KASSAY
86.78 ACRES
LEASE NUMBER
WV-061-003302-002
TAX MAP & PARCEL
31-04-0017-0048-0000

PRECISION OIL & GAS INC
32.03 ACRES
LEASE NUMBER
WV-061-003542-001
TAX MAP & PARCEL
31-04-0017-0062-0000

KASSAY 6H

BOORD, BENCHEK and ASSOC., INC.
Engineering, Surveying, Construction,
and Mining Services
Southpointe, PA 15317 Phone: 724-746-1055



FEB 5 2019
JANUARY 23, 2019
WV Department of Environmental Protection

Gas

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-061-01796 WELL NO.: 6H

FARM NAME: Kassay

RESPONSIBLE PARTY NAME: Northeast Natural Energy LLC

COUNTY: Monongalia DISTRICT: Clay

QUADRANGLE: Blacksville, WV

SURFACE OWNER: Patty A. Kassay

ROYALTY OWNER: Patty A. Kassay, et al

UTM GPS NORTHING: 4390167.9

UTM GPS EASTING: 569109.5 GPS ELEVATION: 1,534'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential _____
Real-Time Differential

Mapping Grade GPS _____ : Post Processed Differential _____
Real-Time Differential _____

4. **Letter size copy of the topography map showing the well location.**

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Hollimmedy
Signature

Regulatory Manager
Title

1-23-19
Date

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