



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, January 30, 2019
WELL WORK PLUGGING PERMIT
Vertical Plugging

CENTRAL APPALACHIA MINING LLC
STATE HWY 49 GRAVEVINE CR. RD.

EDGARTON, WV 25672

Re: Permit approval for 2
47-059-00682-00-00

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

A blue ink signature of James A. Martin, Chief, is written over a faint circular stamp.

Operator's Well Number: 2
Farm Name: THACKER CREEK CO.
U.S. WELL NUMBER: 47-059-00682-00-00
Vertical Plugging
Date Issued: 1/30/2019

H

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.

WW-4B
Rev. 2/01

1) Date October 30, 2018
2) Operator's
Well No. Thacker #2
3) API Well No. 47-059-00682

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 1325.7 Watershed Tug Fork
District Magnolia County Mingo Quadrangle Majestic
- 6) Well Operator CENTRAL APPALACHIA MINGO, LLC 7) Designated Agent Roy F. Layman
Address 265 HAMBLEY BOULEVARD Address PO Box 1835
PIKEVILLE, KY 41502 Huntington, WV 25719
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Jeremy James Name R & J Well Service
Address 601 57th Street Southeast Address 1087 Raccoon Road
Charleston, WV 25304 Hueysville, KY 41640

- 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



Date

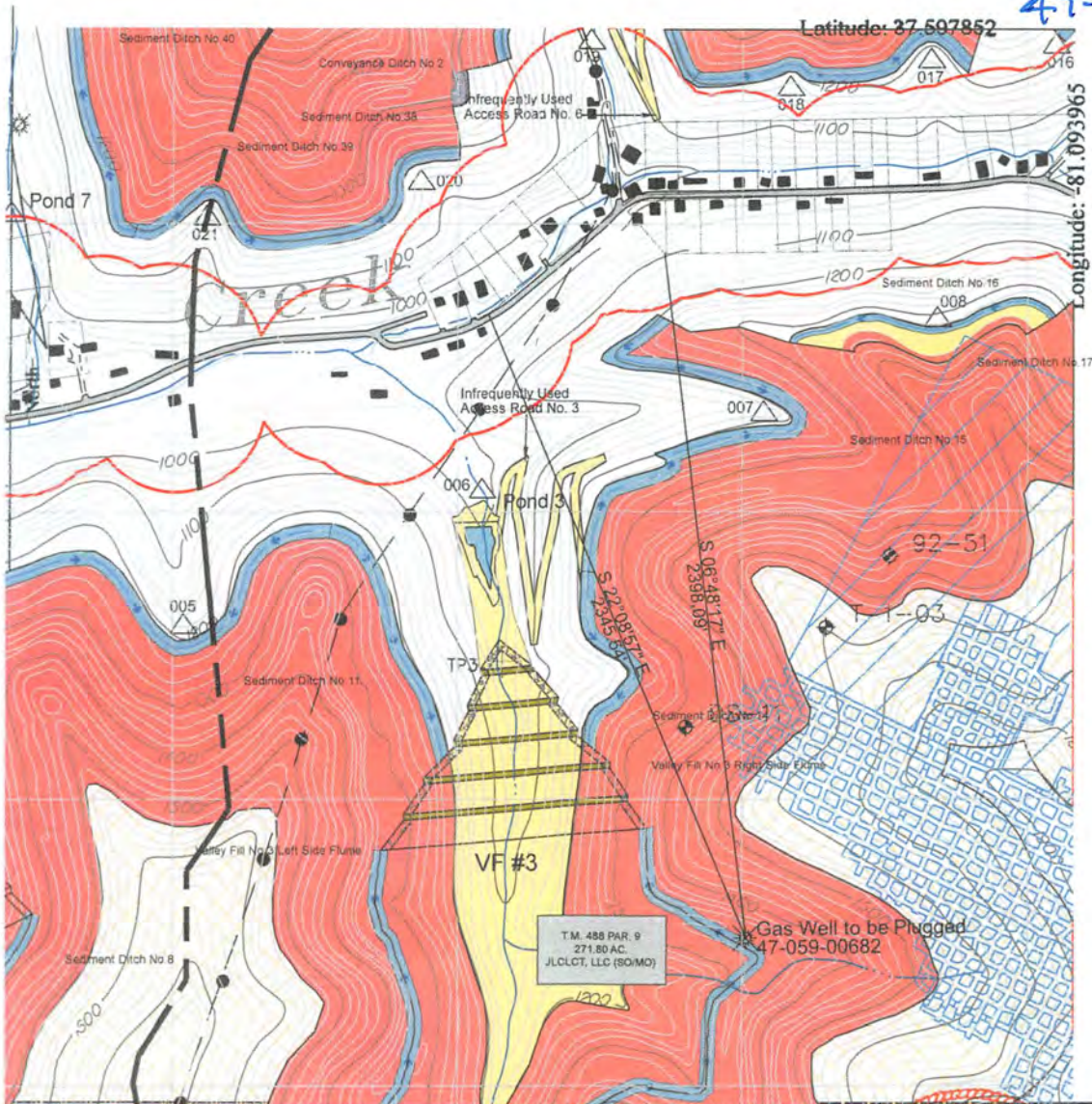
11-9-2018

Farm Name: Thacker Creek Company
 Permit # MIN 682
 Well #2
 TD- 2895'
 Elevation 1325.7'
 Mingo County

- 1) Notify State Inspector at least 48 hours prior to commencing Plug and Abandonment.
- 2) MIRU. There is no tubing in well. There is 5 ½", 8 ¼", and 10" casing. RIH w/ wire line, TD well. Locate bottom of 5 ½" casing w/ CCL.
- 3) TIH w/ tubing to approx. 2890'. Pump 20 bbls of 6% gel water. Set 375' cement plug in 5" hole w/ Class A Cement, 2% Calcium,, 1/8 lb Celloflake. TOO H w/ 1000' of tubing. Let set 8 hours.
- 4) Check TOC. If TOC is @ 2526' or higher, load hole w/ 6% gel water. If TOC is below 2526', reset cement plug as needed. TOO H w/ tubing.
- 5) Locate free point of 5 ½" casing. Cut off casing @ free point and TOO H w/ casing.
- 6) TIH w/ tubing, set 100' cement plug @ casing cut. TOO H w/ 1000' of tubing. Let set 4 to 8 hours. Check TOC, reset cement plug as needed.
- 7) TIH w/ tubing to 1726'. Set 100' cement plug (salt water). TOO H w/ 1000' of tubing. Let set 4 to 8 hours, check TOC. Reset plug as needed.
- 8) TIH w/ tubing to 1544. Set 100' cement plug (salt water). TOO H w/1000' of tubing. Let set 4 to 8 hours, check TOC. Reset plug as needed.
- 9) TIH w/ tubing to 1325'. Set 100' plug (elevation). TOO H w/ 1000' of tubing. . Let set 4 to 8 hours, check TOC. Reset plug as needed.
- 10) Perforate 8" casing @ 985' and 959'. TIH w/ tubing to 1040'. Set 150' plug (8" casing seat and Coal). TOO H w/ 1000' of tubing. . Let set 4 to 8 hours, check TOC. Reset plug as needed.
- 11) Free point 8" casing.
- 12) If free point is above 750', perforate 8" casing @ 750', 700', and 650'. TIH w/ tubing to 750'. Set 100' plug. TOO H w/ tubing. Let set for 4 to 8 hours. Check TOC, reset plug as needed.
- 13) Shoot off and pull 8" @ free point. If free point is above 498', perforate casing @ 498', 450', and 443'. TIH w/ tubing to 498'. Set 100' plug (Coal). TOO H w/ tubing. . Let set 4 to 8 hours, check TOC. Reset plug as needed.
- 14) Shoot 8 ¼" casing @ free point. TOO H w/ casing.
- 15) If 8" casing will not pull, perforate casing @ 200', 150', 120' and 100'. TIH w/ tubing to 200'. Circulate cement to surface.
- 16) Install monument.

AF. 11-9-2018

47-059-00682P



FILE #: 18291
 DRAWING #: N.A.
 SCALE: 1" = 500'
 MINIMUM DEGREE OF ACCURACY: N.A.
 PROVEN SOURCE OF ELEVATION: GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 Signed: *Lantz G. Rankin*
 R.P.E.: _____ L.L.S.: 961SU



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: October 30, 2018
 OPERATOR'S WELL #: Thacker #2
 API WELL #: 47 059 00682
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: Tug Fork ELEVATION: 1325.7
 COUNTY/DISTRICT: 059-Mingo / 5-Magnolia QUADRANGLE: 452 - MAJESTIC
 SURFACE OWNER: JLCLCT, LLC ACREAGE: 271.80
 OIL & GAS ROYALTY OWNER: JLCLCT, LCC ACREAGE: 271.80
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: _____ ESTIMATED DEPTH: 3585 feet
 WELL OPERATOR Logan Gas Development Company DESIGNATED AGENT Roy F. Layman
 Address 37 North Valley Road, Suite 2A Address P.O. Box 1835
 City Paoli State PA Zip Code 19301 City Huntington State WV Zip Code 25719



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 5

2-1
B-1

Quadrangle Matewan

Permit No. MIN-682

WELL RECORD

Oil or Gas Well Gas

Company Logan Gas Development Company
Address 409 Land Title Bldg., Philadelphia 10, Pa.
Farm Thacker Creek Company Acres 276.6
Location (waters) Thacker Creek
Well No. 2 Elev. 1325.7
District Magnolia County Mingo
The surface of tract is owned in fee by Thacker Creek Company Address See Above
Mineral rights are owned by Thacker Creek Company Address See Above

Drilling commenced November 1, 1960
Drilling completed February 14, 1961

Rate Shot NS From _____ To _____
With _____

Open Flow 12 /10ths Water in 5 1/2" 15.50 Inch
_____ /10ths Merc. in _____ Inch

Volume 901,000 Cu. Ft.
Rock Pressure 440 lbs. 91 hrs.

Oil None bbls., 1st 24 hrs.
WELL ACIDIZED 2/17/61 1340 gallons 15% Acid

Dovell

WELL FRACTURED _____

RESULT AFTER TREATMENT 72/10 W. 5 1/2" 15.50 CSG 2,209,000 Cu. Ft.

ROCK PRESSURE AFTER TREATMENT 455

Fresh Water 120' - 700' - 715' Feet Salt Water (1489' - 941') (1676' - 804') Feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Also <u>3"x5" Hookwall Set 2847'</u>
16			Kind of Packer <u>BH</u>
13			
10 <u>32.75"</u>	<u>22' 8"</u>	<u>22' 8"</u>	Size of <u>8"</u>
<u>8 1/4" 24 1/2"</u>	<u>990'</u>	<u>990'</u>	Depth set <u>991'</u>
<u>6 1/2"</u>			
<u>5 3/16"</u>			
<u>3"</u>	<u>2895'</u>	<u>2895'</u>	<u>3" Perf. top 2881</u>
<u>2"</u>			<u>Perf. bottom 2886</u>
Liners Used <u>None</u>			<u>Perf. top _____</u>
			<u>Perf. bottom _____</u>

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

COAL WAS ENCOUNTERED AT 443 FEET 60 INCHES
959 FEET 24 INCHES FEET INCHES
FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	5			
Slate			5	20			
Sand			20	180	Fresh water	120' 3/4	bailer per hour
Slate & Shells			180	230			
Sand			230	290			
Slate			290	325			
Sand			325	337			
Slate			337	412			
Sand			412	443			
Coal			443	448			
Sand			448	465			
Slate			465	525			
Sand			525	550			
Slate			550	557			
Sand			557	608			
Slate			608	680			
Lime			680	695			
Sand			695	750	Fresh Water	700' - 715'	Increase to 2

Formation	Color	Hard or Soft	Top 5'	Bottom	Oil, Gas or Water	Depth Found	Remarks
Lime			1765	1824	Salt Water	1676' - 80'	Increase to
Sand			1824	1843	1/4 bailer	per hour	
Red Rock			1843	1851			
Lime			1851	1879			
Slate & Shells			1879	1927			
Gritty Lime			1927	1973			
Sand			1973	1992			
Red Rock			1992	1994			
Gritty Lime			1994	2001			
Red Rock			2001	2016			
Gritty Lime			2016	2080			
Red Rock			2030	2219			
Gritty Lime			2219	2340			
Sand			2340	2368			
Slate			2368	2382			
Maxon Sand			2382	2416			
Slate & Shells			2416	2484			
Red Rock			2484	2488			
Slate & Shells			2488	2518			
Sand			2518	2540			
Slate & Shells			2540	2576			
Big Lime			2576	2894	Gas	2814' - 17'	Show
Sand	Gray		2894	2898	Gas	2882' - 86'	14/10 W. 5 1/2"
Slate			2898	2899			15.50# CSG
Lime			2899	2900			
Red Rock			2900	2906			
Lime			2906	2914			
Total Depth			2914'				
NOTE: Hole filled back with stone and clay to 2895'							
WELL DEEPEMED APRIL 15, 1962							
Original total depth 2914'							
Injun Sand			2914	2987	No gas or water		
Weir Sand			2987	3153	encountered. No		
Slate and Shells			3153	3449	oil or coal. Final		
Shale-dark			3449	3528	open flow 16/10 W. 2".		
Berea Sand			3528	3534	T.D.		
Slate and Shells			3534	3585			
Delivery from the well has been declining and it was making water. A rig was set up over it and the well was bailed and cleaned out. This did not help the open flow, so it was decided to drill deeper. The deepening record (? copies) is enclosed. No. coal, oil, water or gas was encountered. There was no tubing in the well originally and none was added. No change was made in the casing, and well was put back into line.							

ALLEN DRILLING COMPANY
DEEPENING RECORD FOR THAYER WELL #2

Original total depth 2914':

Injun Sand	2914	-	2987	No gas or water encountered. No oil or coal. Final open flow 16/10 W. 2". T. D.
Weir Sand	2987	-	3153	
Slate and Shells	3153	-	3449	
Shale-dark	3449	-	3528	
Berea Sand	3528	-	3534	
Slate and Shells	3534	-	3585	



47-059-0068 2P

059-682



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

To THE DEPARTMENT OF MINES,
Charleston, W. Va.

No coal operator
COAL OPERATOR OR COAL OWNER

Logan Gas Development Co.
NAME OF WELL OPERATOR

409 Land Title Bldg.,
Philadelphia 10, Pa.
COMPLETE ADDRESS

ADDRESS

Thacker Creek Co.
COAL OPERATOR OR COAL OWNER
409 Land Title Bldg.,
Philadelphia 10, Pa.
ADDRESS

Aug. 24, 19 60
PROPOSED LOCATION

Karnolia District

Ditto
OWNER OF MINERAL RIGHTS
ADDRESS

Mingo County

Well No. Thayer # 2 37° 40' 82° 05' E. 1335.7'

Thacker Creek Co. Farm

276.6 acres

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated Oct. 1, 1947, made by Thacker Creek Co., to Columbian Carbon Co., and recorded on the 23 day of December, 1947, in the office of the County Clerk for said County in Book 33, page 284.

The enclosed plat was prepared by a competent engineer and shows the proposed location of a well to be drilled for oil and gas by the undersigned well operator on the farm and in the Magisterial District and County above named, determined by survey and courses and distances from two permanent points, or land marks.

The undersigned well operator is informed and believes there are no coal operators operating beds of coal beneath said farm or tract of land on which said well is located, or within 500 feet of the boundaries of the same, who have mapped their workings and filed their maps as required by law, excepting the coal operators or coal owners (if any) above named as addressees.

The above named coal operators or coal owners (if any) are notified that any objections they may desire to make to such proposed location, or which they are required to make by Section 3 of said Code, if the drilling of a well at said proposed location will cause a dangerous condition in or about their respective coal mines, must be received by, or filed with the Department of Mines within ten days from the receipt of a copy of this notice and accompanying plat by said Department. Said coal operators are further notified that forms for use in making such objections will be furnished to them by the Department of Mines promptly on request and that all such objections must set forth as definitely as is reasonably possible the ground or grounds on which such objections are based and indicate the direction and distance the proposed location should be moved to overcome same.

(The next paragraph is to be completed only in Department's copy.)

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,

WW-4A
Revised 6-07

1) Date: October 30, 2018
2) Operator's Well Number
Thacker #2

3) API Well No.: 47 - 059 - 00682

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>JLCLCT, LLC</u>	Name <u>Central Appalachia Mining, LLC</u>
Address <u>723 Kanawha Boulevard, East 14th Floor</u>	Address <u>265 Hambley Boulevard</u>
<u>Charleston, WV 25301</u>	<u>Pikeville, KY 41502</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>JLCLCT, LLC</u>
(c) Name _____	Address <u>723 Kanawha Boulevard, East 14th Floor</u>
Address _____	<u>Charleston, WV 25301</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Jeremy James</u>	(c) Coal Lessee with Declaration
Address <u>601 57th Street Southeast</u>	Name <u>Central Appalachia Mining, LLC</u>
<u>Charleston, WV 25304</u>	Address <u>265 Hambley Boulevard</u>
Telephone <u>304-926-0499</u>	<u>Pikeville, KY 41502</u>

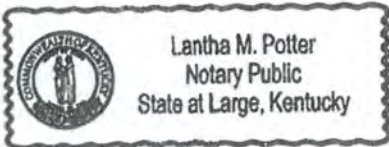
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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.

Well Operator Central Appalachia Mining, LLC
 By: Jack Holbrook *Jack Holbrook* **SIGN**
 Its: General Manager
 Address 265 Hambley Boulevard
Pikeville, KY 41502
 Telephone (606) 432-3900



Subscribed and sworn before me this 2nd day of November 2018
Lantha M. Potter Notary Public
 My Commission Expires March 23, 2021

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 depprivacyofficer@wv.gov.

SURFACE OWNER WAIVER

Operator's Well
Number

Thacker #2

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.

Comments must be in writing. 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;
- 4) 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 work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON
ETC.

FOR EXECUTION BY A CORPORATION,

	Date	Name	Logan Coal&Timber predecessor to JLCLCT, LLC
Signature		By	Rodman Thompson
		Its	<i>President</i> Date
		Signature	Date

LOGAN COAL & TIMBER CORPORATION

63 Chestnut Road, Suite 3
Paoli, PA 19301

August 9, 2018

Rhino Energy, I.L.C.
Attn: Ron Hull
424 Lewis Hargett Circle, Suite 250
Lexington, KY 40503

RE: Logan Gas Development Well

Ron,

Logan Coal & Timber Corporation grants you the right to plug the Logan Gas Development Well situated at the head of Thacker Creek. Should you have any questions, please contact me or Ruffner Woody.

Sincerely,


Rodman E. Thompson, Jr.

WW-4B

API No. 47-059-00682 P
Farm Name _____
Well No. Thacker #2

**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 X / owner _____ / lessee X / 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: October 30, 2018

Central Appalachia Mining, LLC

By: Jack Holbrook

Its General Manager

SIGN Jack Holbrook SIGN 

WW-9
(5/16)

API Number 47 - 059 - 00682
Operator's Well No. Thacker #2

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

Operator Name Central Appalachia Mining, LLC OP Code N.A.

Watershed (HUC 10) Tug Fork Quadrangle Majestic

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 N/A)

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? _____

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.

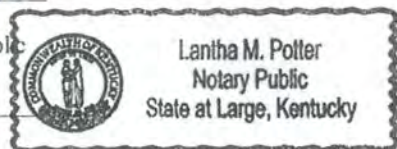
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 Jack Holbrook SIGN 
Company Official (Typed Name) Jack Holbrook
Company Official Title General Manager

Subscribed and sworn before me this 2nd day of November, 20 18

Lantha M Potter Notary Public
My commission expires March 23, 2021



Operator's Well No. Thacker #2

Proposed Revegetation Treatment: Acres Disturbed N/A Prevegetation pH N/A

Lime N/A Tons/acre or to correct to pH N/A

Fertilizer type N/A

Fertilizer amount N/A lbs/acre

Mulch N/A Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre


Not applicable. Well is to be covered by
LLC's Remining 3 Surface Mine, Permit

Valley Fill 3 of Central Appalachia Mining,
S-5014-04.

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:  Allen Flowers

Comments: _____

Title: J. S. [Signature] Date: 11-9-2018

Field Reviewed? Yes No

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

Operator Name: Central Appalachia Mining, LLC

Watershed (HUC 10): Tug Fork Quad: Majestic

Farm Name: _____

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

N/A. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVPDES Permit WV1022733.

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

N/A. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVPDES Permit WV1022733.

- 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. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVPDES Permit WV1022733.

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

N/A. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVPDES Permit WV1022733.

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

N/A. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVNPDES Permit WV1022733.

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

N/A. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVNPDES Permit WV1022733.

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. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVNPDES Permit WV1022733.

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

N/A. Well is to be covered by Valley Fill 3 of Central Appalachia Mining, LLC's Remining 3 Surface Mine Permit S-5014-04. All discharges are already permitted under Central Appalachia Mining, LLC's Remining 3 Surface Mine WVNPDES Permit WV1022733.

Signature:

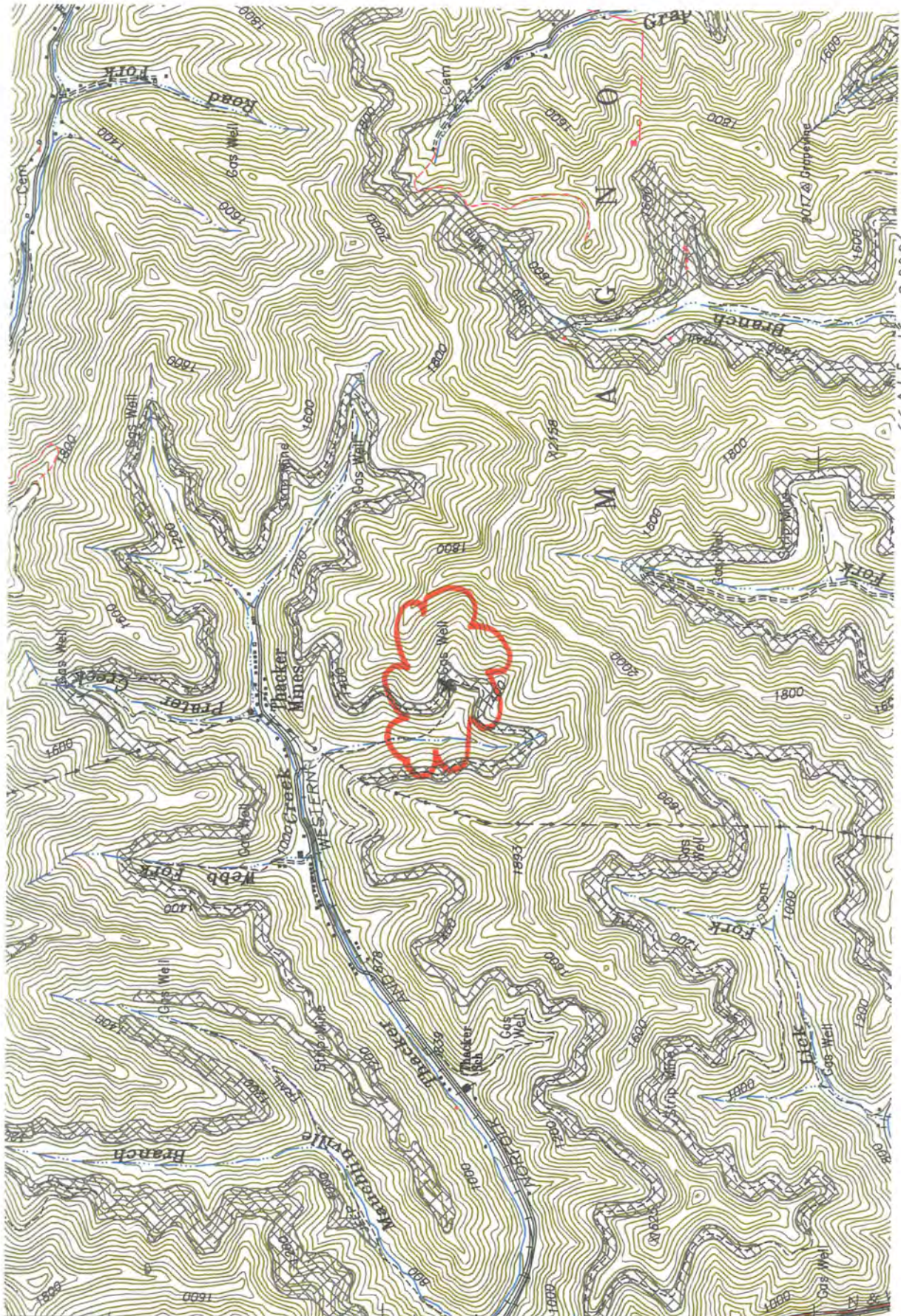
Jack Holbrook

→ SIGN



Date:

11/2/2018



NORTH 4163

4162

4161

WILLIAMSON 19 MI.
MATEMAN 5 MI.

35

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-059-00682 WELL NO.: Thacker #2

FARM NAME: Thacker Creek Company Farm

RESPONSIBLE PARTY NAME: Central Appalachia Mining, LLC

COUNTY: Mingo DISTRICT: Magnolia

QUADRANGLE: Majestic

SURFACE OWNER: JLCLCT, LLC

ROYALTY OWNER: JLCLCT, LLC

UTM GPS NORTHING: 403429.16

UTM GPS EASTING: 4161759.91 GPS ELEVATION: 404.07m

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:

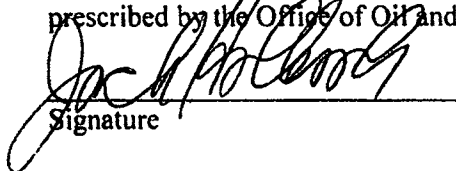
1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

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.


Signature

General Manager
Title

11/02/2018 ← SIGN
Date

