

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

Tuesday, May 26, 2020
WELL WORK PLUGGING PERMIT
Vertical Plugging

CORE APPALACHIA OPERATING LLC 101 MCQUISTON DRIVE

JACKSON CENTER, PA 16133

Re: Permit approval for 802076 47-043-02012-00-00

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: 802076

Farm Name: WOODROW AND LINDA ME

U.S. WELL NUMBER: 47-043-02012-00-00

Vertical Plugging
Date Issued: 5/26/2020

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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 Febru | uary 2 | 5, | 2020 | |
|---------------|--------|--------|---------|---|
| 2) Operator | 's | | | |
| Well No. | 80207 | 6 | | _ |
| 3) API Well | No. | 47-043 | - 02012 | P |

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

| | APPLICATION FOR A PERM | MIT TO PLUG AND ABANDON |
|------|--|--|
| 41 | Well Type: Oil/ Gas X/ Liquic | d injection / Waste disposal / |
| 11 | | derground storage) Deep/ Shallow X |
| 5) | Location: Elevation 289.62 m | Watershed Kentuck Fork (Fourmile Creek of Guyandotte River) |
| 0, | District Sheridan | County Lincoln Quadrangle Branchland |
| | One Annalastic Occupios III O | Jacobs Creathouse |
| 6) | Well Operator Core Appalachia Operating, LLC | 7) Designated Agent Jessica Greathouse |
| | Address P.O. Box 6070 | Address P.O. Box 6070 |
| | Charleston, WV 25362 | Charleston, WV 25362 |
| 8) | Oil and Gas Inspector to be notified Name Jeffery L. Smith | 9) Plugging Contractor Name R & J Well Services, Inc. |
| | Address 5349 Karen Circle, Apartment 2101 | Address P.O. Box 40 |
| | Cross Lanes, WV 25313 | Hueysville, KY 41640-0040 |
| | SEE ATTACHE | RECEIVED Office of Oil and Gas MAR 1 1 2020 WV Department of Environmental Protection |
| work | fication must be given to the district of can commence. | 1 and gas inspector 24 hours before permitted $Date$ |
| WOLK | OK by Jewm | Date 0/201-020 |

PLUGGING PROGNOSIS

802076 West Virginia, Lincoln County API # 47-043-02012

Completed by J.M. Updated 11/5/2019

Casing Schedule 10" csg @ 13'. 6 5/8" csg @ 1417'

3" csg @ 1713' TD @ 1713'

Completion: shot

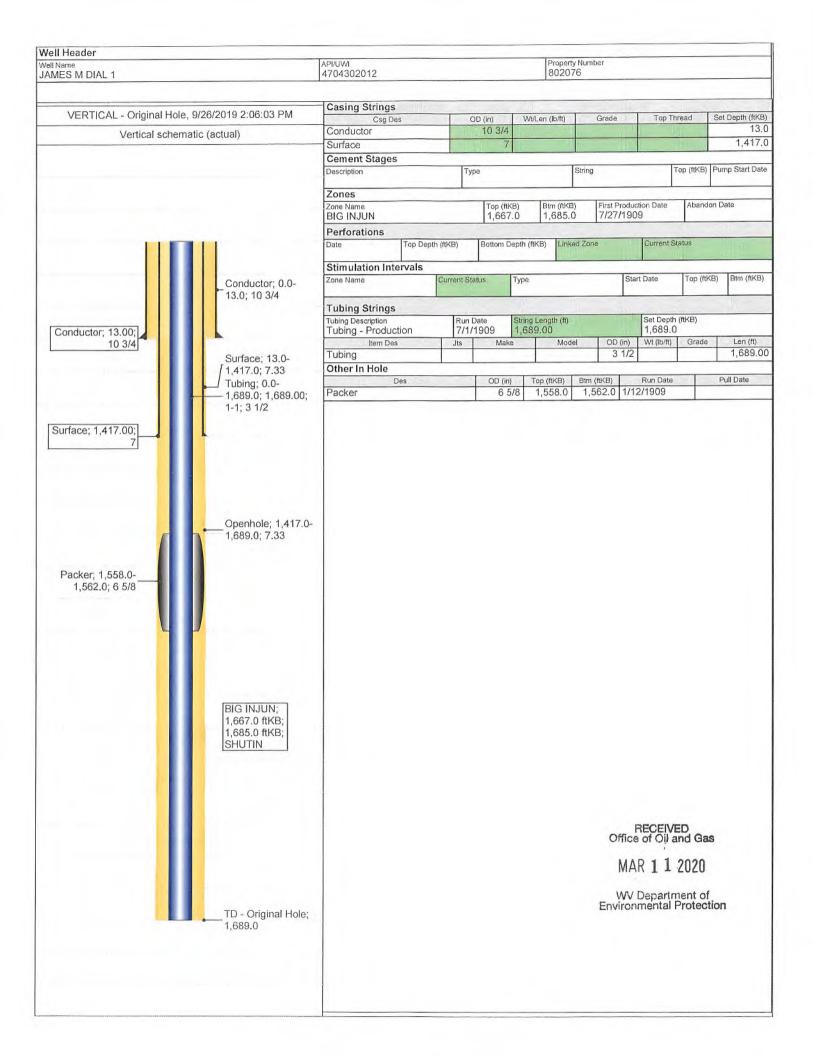
Fresh Water: 365' Gas Shows: 1667' Oil Shows: 922', 1539' Elevation: 950' Coal: 365'-369'

- 1. Notify inspector, Jeffrey Smith @ 681-313-6743, 48 hrs. prior to commencing operations.
- 2. Check and record pressure on csg.
- 3. Check TD w/ wireline
- 4. Free point 3" csg and cut 3" csg. Set 100' C1A cement plug across the csg cut. 50' in/out of cut. Do not omit any plugs below. Perforate as needed.
- 5. TIH w/ tbg to 1689'. Load well as needed w/ 6% bentonite gel. Pump 100' C1A cement plug 1689'- 1589' (Gas Show)
- 6. TOOH w/ tbg to 1653'. Pump 6% bentonite gel from 1589'- 1539'
- 7. TOOH w/ tbg to 1539'. Pump 100' C1A cement plug 1539'- 1367' (Oil Show & 6 5/8" csg st)
- 8. TOOH w/ tbg to 1367'. Pump 6% bentonite gel from 1367'- 950'
- 9. TOOH w/ tbg. Free point 6 5/8" csg and cut 6 5/8" csg. Set 100' C1A cement plug across the csg cut. 50' in/out of cut. Do not omit any plugs below. Perforate as needed.
- 10. TIH w/ tbg to 950'. Pump 128' C1A cement plug 950'- 822' (Elevation & Oil Show)
- 11. TOOH w/ tbg to 822'. Pump 6% bentonite gel from 822'- 416'
- 12. TOOH w/ tbg to 416'. Pump 100' C1A cement plug from 416'- 316' (Coal & freshwater)
 - 13. TOOH w/tbg to 316'. Pump 6% bentonite gel from 316'- 100'
 - 14. TIH w/ tbg to 100'. Pump 100' C1A cement plug from surface'- 100' (surface)
 - 15. Erect monument with API#, date plugged, & company name.
 - 16. Reclaim location and road to WV-DEP specifications.

IF POSSIBLE, SET SURFACE PLUG FROM 416' TO SURFACE. Office of Oil and Gas

MAR 1 1 2020

WV Department of Environmental Protection



FORM U-87-BM-4-80-PADS OF 100

Well 803076

| SERIAL WELL NO. | 2076 | LEASE NO | | us recommon i tra | MAP | SQUARE 28-47 |
|----------------------|-------------------|----------|------------|-------------------|---------------------|------------------------------------|
| BECORD | OF WELL No. | on the | GAS | BING AND TUE | ING | YEST BEFORE BHOT |
| record r. M. Dáal | Farm of | Acres | # IXI | DRILLING | LEFT IN | . of Water in inc |
| in - | Branchland | District | 16 | | | 10ths, of Merc. ininc 10ths. |
| | Lincoln | County | 13 | | 1 | Volume Cu, f |
| | Field, State of T | v.Va. | 10 | | 13 | TEST AFTER SHOT |
| | | | 8 1/4 | | | of Water in inc |
| Rig Commenced | | 193 | 6 5/8 | | 1417 | of Merc, in inc |
| Rig Completed | | 193 | 5 3/16 | | | Volume Cu. f |
| Drilling Commenced | | 193 | 4 7/8 | | | Rock Pressure 550 |
| Drilling Completed | July 12, 1909 | 193 | 4 | | | Date Shot |
| Drilling to cost | per foot | | 3 | | 1713 | Size of Torpedo |
| Contractor is: | | | 2 | | 1 | Oil Flowedbbls, 1st 24 hr |
| Address: | | | | BHUT IN | | Oil Pumped bbls, 1st 24 hrs |
| Driller's Name | | | Date in | G (Stellerment) | Tubing or Casing | Well abandoned and |
| | | | | ker | | Plugged |
| | | | 1,000 | acker | | |
| | | | ATTENDED | Set f | | |
| | | | | Set [| | sace i v recomo de 61 - 1 - 1 - 1 |

| | er en armene | | ILLER'S RECO | |
|-------------|--------------|--------|--------------|--|
| FORMATION | TOP | воттон | YHICKNESS | REMARKS |
| Coal | 365 | 369 | | Water in Big Dunkard 1/2 Bbl.per hour |
| Gas Sand | 750 | 800 | 1 | |
| Salt Sand | 895 | 1 260 | | |
| Little Lime | 1385 | 1405 | 1 | Show of oil 922-938 hole full salt water |
| Pencil Cave | 1495 | 1409 | | |
| Big Lime | 1411 | 1630 | | Show of oil 1539 - 1540 |
| Boroa Sand | 1667 | 1685 | | Gas Est. 3,500,000 ft. |
| Total Depth | | 1689 | | |
| | | | | Gas from Big Injun |
| | 1 | | | |
| | 1 | | | |
| | | | | ' |
| 0 | | | | |
| | 1 | | | |
| | 1 | 1 | | |
| | | | 1 | · · |

RECEIVED Office of Oil and Gas

MAR 1 1 2020

WV Department of Environmental Protection WW-4A Revised 6-07

| 1) Date: | February 25, 2020 | | | | |
|----------------|-----------------------|-----|-----|-------|--|
| 2) Operator's | Well Number 802076 | | | | |
| 9) A DI Wall N | 0 : 47 | 043 | - 5 | 02012 | |

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 Operator | |
|----------------|------------------------------------|----------------------|----------------------------------|
| (a) Name | Woodrow and Linda Merritt | Name | |
| Address | 285 Kenluck Fork Road | Address | |
| | Branchland, West Virginia 25506 | | |
| (b) Name | | (b) Coal Owr | ner(s) with Declaration |
| Address | | Name | Southern Region Industrial, Inc. |
| | | Address | Three Commercial Drive |
| | | | Norfolk, Virginia 23510 |
| (c) Name | | Name | Pocahontas Land Corp. |
| Address | | Address | P.O. Box 1517 |
| | | | Bluefield, WV 24701 |
| 6) Inspector | Jeffery L. Smith | (c) Coal Less | ee with Declaration |
| Address | 5349 Karen Circle, Apartment #2101 | Name | |
| | Cross Lanes, WV 25313 | Address | |
| Telephone | 681-313-6743 | | |
| | | | |

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.

| A.A. | OFFICIAL SEAL, NOTARY PUBLIC STATE OF WEST VIRGINIA | Well Operator By: | Core Appalachia Operating, LLC Jessica Greathouse | |
|----------------|---|----------------------|--|--|
| | Phyllis A. Copley 144 Wilard Circle | Its: | Manager - Environmental, Health, Safety | |
| in more did | Humcane, WV 25528 | Address | P.O. Box 6070 | |
| STATE OF THE O | tommission Expires September 16, 2023 | | Charleston, WV 25362 | RECEIVED Office of Oil and Ga |
| | | Telephone | 304-353-5240 | Office of Oil and Ga |
| Subscriber | d and sworn before me t | his 94 de | ay of 41 March 2020 | MAR 1 1 2020 WV Department of Environmental Protect |

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 (5/16)

API Number47 - 043-02012 Operator's Well No. 802076

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

| Operator Name Core Appalachia Operating, LLC | OP Code 494518671 |
|--|---|
| Watershed (HUC 10)_Kentuck Fk (050701020105) Fourmile Crk of Guyandotte RiverQuadrangle | e Branchland |
| Do you anticipate using more than 5,000 bbls of water to complete the proposed water to compl | well work? Yes No V |
| Will a pit be used? Yes ✓ No | |
| If so, please describe anticipated pit waste: Plugging returns/Cement | |
| Will a synthetic liner be used in the pit? Yes V No If | if so, what ml.? 20 |
| Proposed Disposal Method For Treated Pit Wastes: | |
| X Land Application (if selected provide a completed form | |
| Underground Injection (UIC Permit Number | |
| Reuse (at API Number Off Site Disposal (Supply form WW-9 for disposal loc | |
| Other (Explain_ | |
| Will closed loop systembe used? If so, describe: | |
| Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwate | |
| -If oil based, what type? Synthetic, petroleum, etc | |
| Additives to be used in drilling medium? | |
| Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc | |
| -If left in pit and plan to solidify what medium will be used? (cement, lin | lime, sawdust) |
| -Landfill or offsite name/permit number? | |
| Permittee shall provide written notice to the Office of Oil and Gas of any load of o West Virginia solid waste facility. The notice shall be provided within 24 hours of where it was properly disposed. | f drill cuttings or associated waste rejected at any of rejection and the permittee shall also disclose |
| I certify that I understand and agree to the terms and conditions of the Glon April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of convisions of the permit are enforceable by law. Violations of any term or condition or regulation can lead to enforcement action. I certify under penalty of law that I have personally examined and am application form and all attachments thereto and that, based on my inquiry of those he information, I believe that the information is true, accurate, and complete. I submitting false information, including the possibility of fine or imprisonment. Company Official Signature Company Official (Typed Name) Jessica Greathouse | of Environmental Protection. I understand that the ion of the general permit and/orother applicable law im familiar with the information submitted on this se individuals immediately responsible for obtaining |
| Company Official Title Manager - Environmental, Health, Safety | |
| Subscribed and swom before me this 94 day of March | , 20 <u>20</u> BECEIVED |
| Phylles a. Coply | RECEIVED Office of Oil and G |
| My commission expires September 16, 2023 | MAR 1 1 202 |
| | V.V Department Environmental Prote |

Operator's Well No. 802076

| roposed Revegetation Treati | ment: Acres Disturbed Tons/acre or to correct to | Preveg etation pH on the Preveg etation ph on | |
|---|---|---|--|
| | -20-20 or equivalent | | |
| Fertilizer amount_ | | lbs/acre | |
| Mulch 2 | T | ons/acre | |
| | | Seed Mixtures | |
| Те | emporary | Perma | nent |
| Seed Type | lbs/acre | Seed Type | lbs/acre |
| Red Fescue | 40 | Red Fescue | 15 |
| Alsike | 5 | Alsike Clover | 5 |
| Annual Rye | 15 | | |
| | | | |
| Maps(s) of road, location, pirovided). If water from the L, W), and area in acres, of | pit will be land applied, provide the land application area. | oplication (unless engineered plans include le water volume, include dimensions (L, | ding this info have been W, D) of the pit, and dimension |
| Maps(s) of road, location, pingle provided). If water from the L, W), and area in acres, of Photocopied section of invol | pit will be land applied, provide the land application area. ved 7.5' topographic sheet. | le water volume, include dimensions (L, | ding this info have been W, D) of the pit, and dimension |
| Maps(s) of road, location, piperovided). If water from the L, W), and area in acres, of Photocopied section of involutional Plan Approved by: | pit will be land applied, provide the land application area. ved 7.5' topographic sheet. | le water volume, include dimensions (L, | ding this info have been W, D) of the pit, and dimension |
| Maps(s) of road, location, pi provided). If water from the L, W), and area in acres, of Photocopied section of invol | pit will be land applied, provide the land application area. ved 7.5' topographic sheet. | le water volume, include dimensions (L, | ding this info have been W, D) of the pit, and dimension |
| Maps(s) of road, location, pirovided). If water from the L, W), and area in acres, of hotocopied section of invol | pit will be land applied, provide the land application area. ved 7.5' topographic sheet. | le water volume, include dimensions (L, | ding this info have been W, D) of the pit, and dimension |
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| Photocopied section of invol | pit will be land applied, provide the land application area. ved 7.5' topographic sheet. | le water volume, include dimensions (L, | RECEIVED Office of Oil-and G WAR 1 1 2020 WV Department of Environmental Prote |

WW-9- GPP Rev. 5/16

| Pa | ge <u>1</u> | of_2 | _ |
|-----------------------|-------------|---------|---|
| API Number 47 - 04 | 3 | - 02012 | |
| Operator's Well No. 8 | 302076 | | |

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

| Operator Name: Core Appalachia Operating LLC |
|--|
| Watershed (HUC 10): Kentuck Fork HUC ID # 050701020106 (Four mile creek Guyandotte River) Quad: Branchland |
| Farm Name; J.M. Dial |
| List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater. |
| Treatment of the fluid will include adjusting pH and precipitating out solids as needed. Fluid will be discharged in a manor to eliminate sediment runoff. |
| The potential contaminates are class A cement, bentonite gel, and produced fluids. These contaminates are circulated to surface during plugging operations. |
| 2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above |
| The contaminants are circulated to surface and drainage controlled into a line pit. The cement and gel are allowed to settle out in the pit. The produced fluids will then be tested and if treatable treated and ground applied. Otherwise the produced fluids will be hauled to a commercial injection well. |
| 3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area. |
| Closest body of water is Kentuck Fork (2415'). The discharge area is located greater than 5 miles to the nearest wellhead protection area, |
| Summarize all activities at your facility that are already regulated for groundwater protection. There are no activities at this facility regulated for groundwater protection. The facility is a non |
| producing gas well without a tank. |

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

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API Number 47 - 043 - 02012

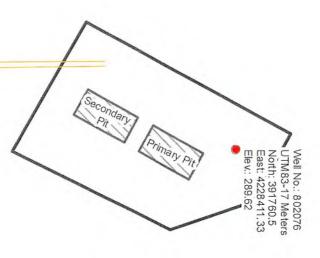
Operator's Well No. 802076

| | here is no existing ground water quality data at this site or adjacent properties |
|---|---|
| | Provide a statement that no waste material will be used for deicing or fill material on the property. |
| 1 | lo waste material will be used for deicing or fill material on this property. |
| | Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination. |
| е | GOC supervision will manage testing and contract employees on site. DGOC supervision wil nsure testing is within all required parameters prior to discharging and utilize silt fencing as eeded to eliminate erosion. |
| | |
| | Provide provisions and frequency for inspections of all GPP elements and equipment. |
| | Provide provisions and frequency for inspections of all GPP elements and equipment. job safety analysis will be completed each day on site to discuss the procedures, safety, and spect all GPP elements and equipment. |

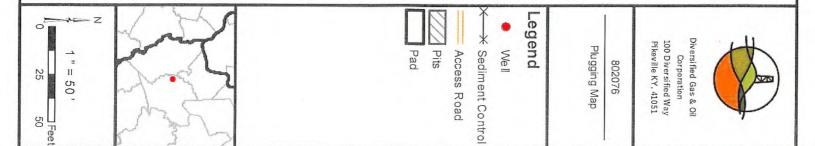
WV Department of Environmental Protection

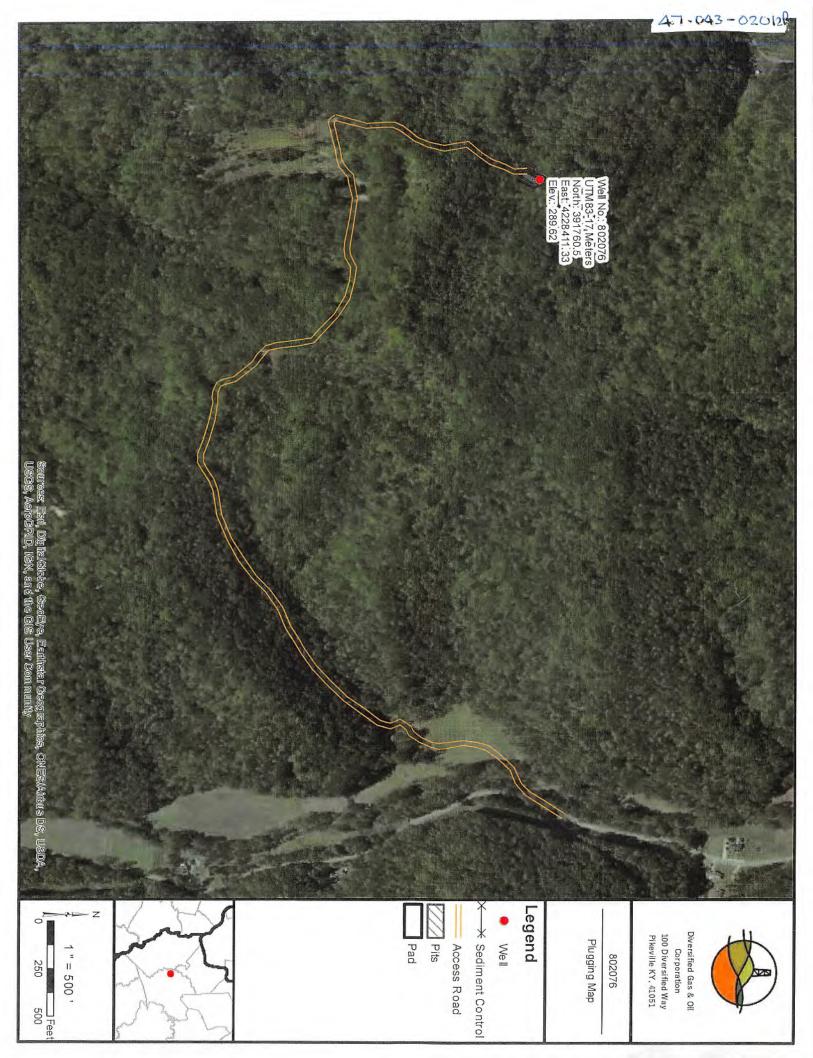
MAR I I 2020

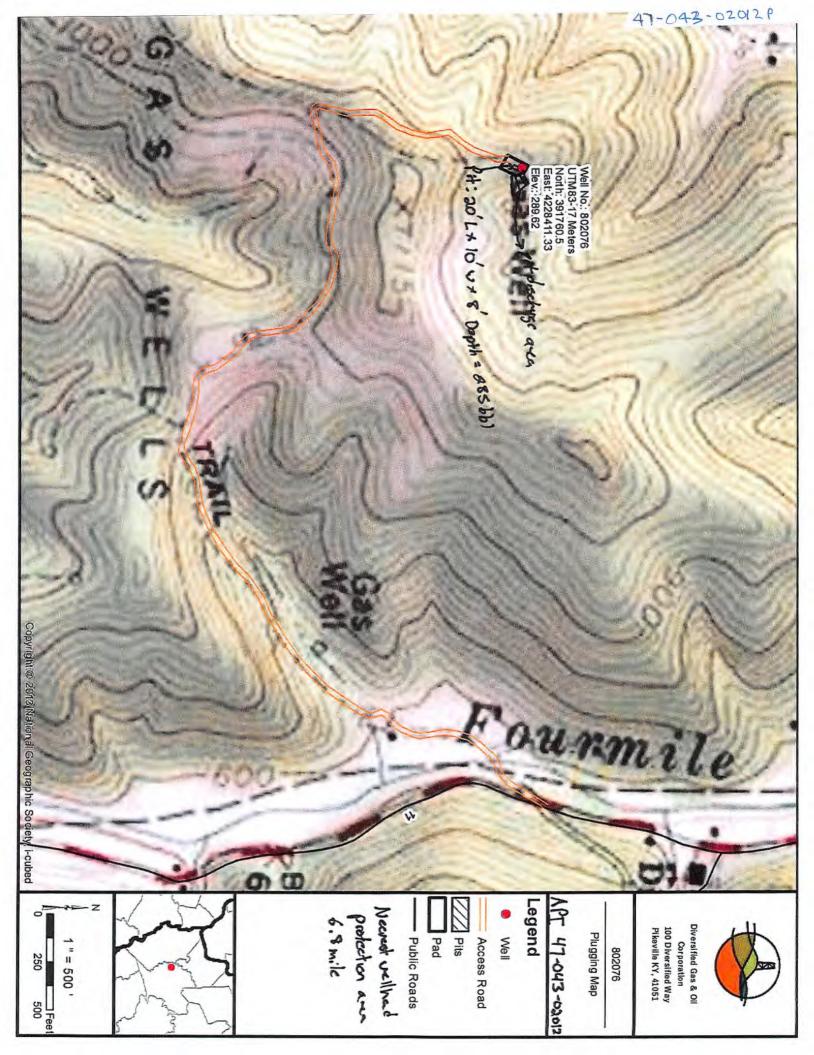
Office of Oil and Gas

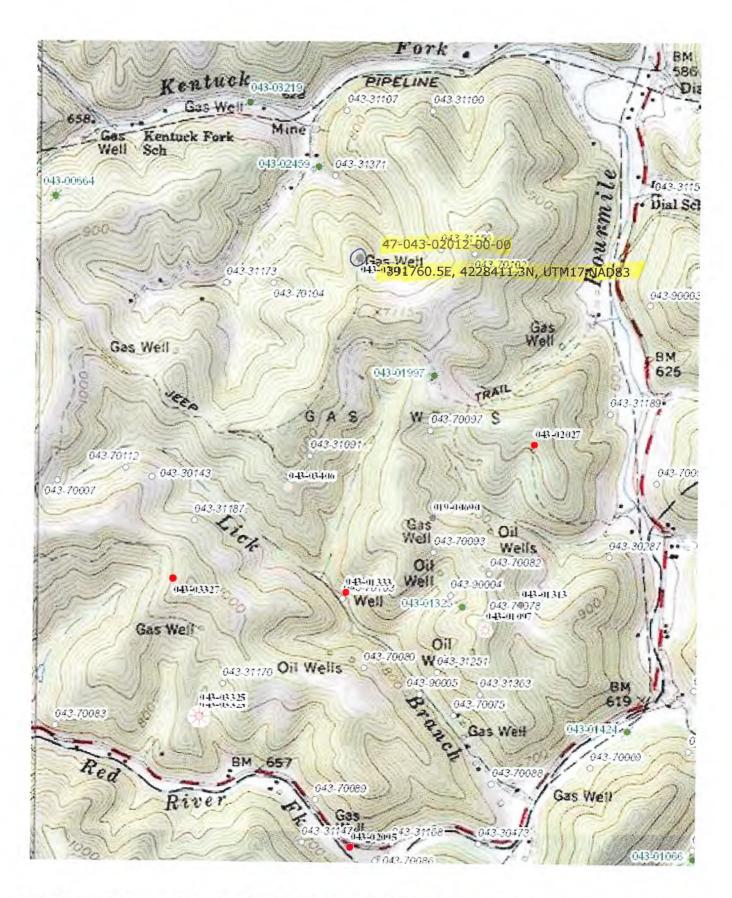


PITS NO MORE









WW-7 8-30-06



West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LOCATION FORM: GPS

| _{API:} 47-043-02012 | WELL NO | _{0.:} 802076 | |
|--|--|-----------------------|--|
| FARM NAME: J.M. Dial | | | |
| RESPONSIBLE PARTY NAME: C | ore Appalachia | Operating LL | |
| | DISTRICT: | | |
| QUADRANGLE: Branchland | | | |
| SURFACE OWNER: Wodrow a | and Linda Merr | itt | |
| ROYALTY OWNER: Core App | | | |
| UTM GPS NORTHING: 391,760 | | 950' | |
| UTM GPS EASTING: 4,228,41 | | | 2 |
| preparing a new well location plat for a above well. The Office of Oil and Gas with following requirements: 1. Datum: NAD 1983, Zone: 17 height above mean sea level 2. Accuracy to Datum – 3.05 m 3. Data Collection Method: Survey grade GPS: Post Proces | vill not accept GPS coord 7 North, Coordinate Units (MSL) – meters. eters | inates that do not me | |
| Real-Time Differential | | | MAR 1 1 2020 |
| Mapping Grade GPS X: Post Processed Differential X | | - | WV Department of Environmental Protection |
| Real-Ti | me Differential | | |
| 4. Letter size copy of the topo I the undersigned, hereby certify this dat belief and shows all the information requirescribed by the Office of Oil and Gas. | a is correct to the best of uired by law and the regu | my knowledge and | |
| | | | |
| / the E | ngineer III | 2/24/202 | 0 |