



 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, April 9, 2019

WELL WORK PLUGGING PERMIT
 Vertical Plugging

CORE APPALACHIA OPERATING LLC
 414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 805836
 47-099-00453-00-00

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: 805836
 Farm Name: WM. MEADE ESTATE
 U.S. WELL NUMBER: 47-099-00453-00-00
 Vertical Plugging
 Date Issued: 4/9/2019

I

47-099-00453P

04/12/2019

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

1) Date February 22, 2019
2) Operator's Well No. 805836 **04/12/2019**
3) API Well No. 47-099-00453

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 ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 657.70' Watershed Tug River
District ~~Kermit~~ LINCOLN County Wayne Quadrangle Webb

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 9) Plugging Contractor
Name Allen Flowers Name Precision Drilling (BOSS)
Address 165 Grassy Lick Lane Address 3978 N Elmdale Road
Liberty, WV 25124 Olney, IL 62450

10) Work Order: The work order for the manner of plugging this well is as follows:

SEE ATTACHED SHEET

RECEIVED
Office of Oil and Gas

MAR 11 2019

WV Department of
Environmental Protection

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

Work order approved by inspector  Date 3-11-2019

04/12/2019

PLUGGING PROCEDURE
805836
WAYNE COUNTY, WEST VIRGINIA
API# 47-099-00453

BY: DMC
DATE: 3/7/2019

Current Status

13 1/2" @ 42'
10" @ 143'
8 1/4" @ 835' on bottom hole pkr
6 5/8" @ 1077' on bottom hole pkr
2 3/8" @ 1640' w/pkr @ 1081' (Ran 10/7/1982)
Shale: Shot 1851-2680'
TD @ 2680'
Mine Shaft @ 70-76'
Salt Water @ 500'
Gas Shows @ 425', 510', 995', 1095', 1210', 1895', 2160'
Elevation 533'
9/16/1981 Swab Rig TD @ 1700'
9/22/2011 FL @ 111'

Objective: Plug and abandon

- 1) Prepare road and location.
- 2) MIRU service rig and support equipment
- 3) Blow well down. Check TD.
- 4) Release pkr and TOOH w/ 2 3/8" tbg.
- 5) Check TD.
- 6) Spot 100' cement plug at TD, ~ 1840 - 1740'.
- 7) TIH and tag cement plug.
- 8) Spot 6% gel from 1740 - 1260'.
- 9) Spot 100' cement plug from 1260 - 1160'.
- 10) Attempt to pull 6 5/8" csg. If unsuccessful, cut 6 5/8" at free point.
- 11) Spot 133' cement plug from 1160 - 1027'.
- 12) Spot 6% gel from 1027 - 1050'.
- 13) Spot 100' cement plug from 1050 - 950'.
- 14) Attempt to pull 8 1/4" csg. If unsuccessful, cut 8 1/4" at free point.
- 15) Spot 6% gel from 950 - 885'.
- 16) Spot 100' cement plug from 885 - 785'.

SET 100' CEMENT PLUG ACROSS CUT.

AF. 3-11-19

04/12/2019

- 17) Spot 6% gel from 785 – 600'.
- 18) Spot 225' cement plug from 600 – 375'.
- 19) Spot 6% gel from 375 – 250'.
- 20) **Do not attempt to pull 10" csg.** Shoot or rip holes @ 125'.
- 21) Spot 250' cement plug from 250' – Surface.
- 22) Pull work string and top off w/cement.
- 23) Erect permanent monument (30" minimum height and 6" minimum diameter pipe) with API # (1/2" height numbering) and reclaim.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Waugatch

WELL RECORD

Permit No. W-453

Company: UNITED FUEL GAS CO.

Address: P.O. Box 1273, Charleston 25, W. Va.

Farm: Eula Parsley, Act. Acres: 80

Location (waters): Tug River

Well No.: 5836 Elev.: 633 Cr.

District: Lincoln County: Wayne

The surface of tract is owned in fee by: _____

Mineral rights are owned by: Eula Parsley, Act.
Kenova Address: W. Va.

Drilling commenced: 3-15-47

Drilling completed: 4-27-47

Date Shot: 4-29-47 From: 1851 To: 2680

With: 5750# Gel.

Open Flow: 10ths Water in _____ Inch
10ths Merc. in _____ Inch

Volume: 425 (Shells) _____ Cu. Ft.

Rock Pressure: 200 (Maxon) lbs. _____ hrs.

Oil: _____ bbls. 1st 24 hrs.

Fresh water: _____ feet _____ feet

Salt water: 500 feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
10			Kind of Packer
12	42'	42'	
10	143'	143'	Size of _____
8 1/2	835'	835'	
6 3/4	1077'	1077'	Depth set
5 1/2			
			Perf. top
			Perf. bottom
			Perf. top
			Perf. bottom

CASING CEMENTED	SIZE	No. Ft.

COAL WAS ENCOUNTERED AT	FEET	INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	8			
Blue Mud			8	43			
Broken Sand			43	70			
Mine Shaft			70	76			
Sand			76	84			
Slate			84	300			
Sand			300	330			
Slate			330	400			
Gas Sand			400	460	Gas	425 & 510	Show Gas
Slate			460	475			
Salt Sand			475	620	Water	500	Hole Full
Slate			620	645			
Sand			645	665			
Slate			665	690			
Sand			690	760			
Slate			760	825			
Sand			825	935			
Red Rock			935	947			
Slate			947	955			
Sand			955	975			
Slate			975	990			
Maxon Sand			990	1009	Gas	995	Maxon
Slate			1009	1025			
Little Line			1025	1060			
Pencil Cave			1060	1063			
Big Line			1063	1225	Gas	1095 & 1210	Gas Show
Keener Sand			1225	1240			
Injun Sand			1240	1270			
Slate & Shells			1270	1735			
Black Shale			1735	1756			
Berea Grit			1756	1860			
Brown Shale			1860	1950	Gas	1895 & 2160	Shale
Gray Shale			1950	2145			
Brown Shale			2145	2295			
Gray Shale			2295	2375			
Br. Shale			2375	2669			
White Slate			2669	2680			
Total Depth:			2680				



UNITED FUEL GAS COMPANY
COMPANY

Way-453
47-04912/2019-53P

SERIAL WELL NO. 5836

LEASE NO. 44995 & 44994

MAP SQUARE 18-27

RECORD OF WELL NO. <u>5836</u> on the		CASING AND TUBING				TEST BEFORE SHOT	
<u>ula Parsley Agt. farm of 80 Acres</u>		SIZE	WEIGHT	USED IN DRILLING	LEFT IN WELL	0 /10 of Water in.....1 ^m inc	
<u>in Lincoln District</u>		<u>13 1/2"</u>	<u>42#</u>	<u>42'7"</u>	<u>42'7"</u>	/10 of Merc. in.....incl	
<u>Wayne County</u>		<u>10"</u>	<u>32.75#</u>	<u>143'10"</u>	<u>143'10"</u>	Volume.....Cu. ft	
State of: <u>West Virginia</u>		<u>8 1/2"</u>	<u>24.#</u>	<u>841'</u>	<u>841'</u>	TEST AFTER SHOT	
Field: <u>Branchland</u>		<u>6-5/8"</u>	<u>20.#</u>	<u>1086'5"</u>	<u>1086'5"</u>	<u>76/10 Water 1"</u>	
Rig Commenced <u>March 1, 1947</u>						/10 of Merc. in.....incl	
Rig Completed <u>March 15, 1947</u>						Volume <u>91.89</u>Cu. ft	
Drilling Commenced <u>March 15, 1947</u>						<u>18</u>Hours After Sho	
Drilling Completed <u>April 27, 1947</u>						Rock Pressure <u>425#-48 hrs.</u>	
Drilling to cost <u>2.50</u> per foot						Date Shot <u>4-22-47</u>	
Contractor is: <u>Ware Drilling Co.</u>						Size of Torpedo: <u>5750# Galat</u>	
Address: <u>Beauty, Ky.</u>						Oil Flowed.....bbls. 1st 24 hrs	
						Date <u>April 30, 1947</u>	
Driller's Name <u>Robert Petrie</u>		<u>6-5/8 in.</u>				Oil Pumped.....bbls. 1st 24 hrs	
<u>Paul Kingsley</u>						Well abandoned and	
						Plugged.....194	
Elevation: <u>633' Gr.</u>						1st Perf. Set <u>none</u> from	
						2nd Perf. Set.....from	

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Surface	0	8	8	
Blue Mud	8	43	35	13-1/2" Casing - 42'7"
Broken Sand	43	70	27	
Mine Shaft	70	76	6	
Sand	76	84	8	
Slate	84	300	216	10" Casing - 143'-10"
Sand	300	330	30	
Slate	330	400	70	
Gas Sand	400	460	60	425' - Show of gas
Slate	460	475	15	500' - Hole full of water
Salt Sand	475	620	145	510' - Show of Gas
Slate	620	645	25	
Sand	645	665	20	
Slate	665	690	25	
Sand	690	760	70	
Slate	760	825	65	

APPROVED
[Signature]

47-099-00453P
04/12/2019

3-3
SERIAL WELL NO. 5836

LEASE NO. 44994
44995

MAP SQUARE 18-27

DRILLER'S RECORD

FORMATION	TOP	BOTTOM	THICKNESS	REMARKS
Sand	825	935	110	8 1/2" Casing Point 835' SLM
Red Rock	935	947	12	Run on Bottom Hole Packer
Slate	947	955	8	Size 8 1/2"-24" X 10"-32.75" X 12"-
Sand	955	975	20	8-"V" Thread
Slate	975	990	15	
Maxon Sand	990	1009	19	Gas Pay at 995' 30/10 Water 1"
Slate	1009	1025	16	when closed in between 6-5/8" and
Little Lime	1025	1060	35	8-1/4" Casing
Pencil Cave	1060	1063	3	
Big Lime	1063	1225	162	6-5/8" Casing Point 1077' SLM
Keener Sand	1225	1240	15	1095'- Show of gas
Injun Sand	1240	1270	30	1210'- Show of gas
Slate & Shells	1270	1735	465	1895'- Show of Gas
Black Shale	1735	1756	21	2160'- Show of gas
Berea Grit	1756	1860	104	When Drilling completed not enough
Brown Shale	1860	1950	90	to gauge in 1" opening
Gray Shale	1950	2145	195	
Brown Shale	2145	2295	150	Well shot by Marietta Torpedo Co.
Gray Shale	2295	2375	80	Marietta, Ohio
Brown Shale	2375	2669	294	Shot on 4-29-47 with 5750# Atlas
White Slate	2669	2680	11	Gelatin - Shot with 87- 4 1/2 X 10 1/2
TOTAL DEPTH		2680'	SLM	Shells - Top of shot 1851'-
				Bottom of shot 2680' -
				Test 18 hours after shot and when
				closed in 76/10 Water 1" in Br.
				Shale-
				Maxon Gas 30/10 Water 1"

B-4

04/12/2019

Form U 107-0 000

April 29, 19 47

Mr. J. R. Hussey, Div. Supt.

Well No. 5836 (Serial No.) on Eula Parsley Agt. Farm

Was shot this date with 5750# Gelatin quarts

Number of Shells

Length of Shells

Top of Shot 1851

Bottom of Shot 2680

Top of Brown Shale Sand 1860 feet
(Name of Sand)

Bottom of Brown Shale Sand 2669 feet
(Name of Sand)

Total Depth of Well 2680'

Results: Tested 76/10 Water 1" opening 18 hours
after shot - 92 MCF
30/10 Water 1" in Maxon Sand 57 MCF

Remarks: Not enough to gauge in 1" before shot

Signed *J. R. Hussey* District Supt.

NOTE-When a well is shot this form must be filled out and sent to the General Superintendent.

1) Date: February 22, 2019
2) Operator's Well Number 805836 **04/12/2019**

3) API Well No.: 47 - 47-099 - 00453

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

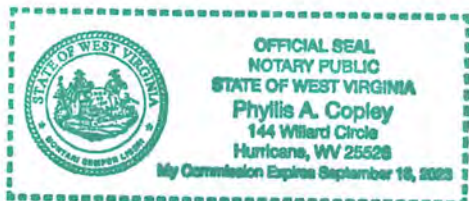
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>William Meade Estate, C/O Lauren Land</u>	Name <u>Appalachian Mining and Reclamation, DJWV2</u>
Address <u>P.O. Box 830</u>	Address <u>1316 Porter Road</u>
<u>Belfry, KY 41514</u>	<u>Catlettsburg, KY 41129</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>William Meade Estate, C/O Lauren Land</u>
	Address <u>P.O. Box 830</u>
	<u>Belfry, KY 41514</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Allen Flowers</u>	(c) Coal Lessee with Declaration
Address <u>165 Grassy Lick Lane</u>	Name <u>Lauren Land</u>
<u>Liberty, WV 25124</u>	Address <u>P.O. Box 830</u>
Telephone <u>304-552-8308</u>	<u>Belfry, KY 41514</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 Core Appalachia Operating, LLC

By: Jessica Greathouse

Its: Manager - EHS & Administration Services

Address P.O. Box 6070

Charleston, WV 25362

Telephone 304-353-5240

RECEIVED
Office of Oil and Gas
FEB 25 2019
West Virginia Department of
Environmental Protection

Subscribed and sworn before me this 22nd day of February 2019

Phyllis A. Copley Notary Public

My Commission Expires September 18, 2023

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.

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) Tug River Quadrangle Webb

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: Plugging returns/Cement - Will utilize above ground tanks

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 20

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 Any fluid recovered will be hauled to a Core tank battery and disposed of properly)

Will closed loop system be used? If so, describe: _____

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

-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, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

RECEIVED
Office of Oil and Gas
FEB 25 2019
Department of Environmental Protection

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 [Signature]
Company Official (Typed Name) Jessica Greathouse
Company Official Title Manager - EHS and Administrative Services



Subscribed and sworn before me this 22nd day of February, 20 19
Phyllis A. Copley Notary Public
My commission expires September 16, 2023

Proposed Revegetation Treatment: Acres Disturbed 1 +/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount _____ lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Red Fescue	40
Alsike	5
Annual Rye	15

Seed Type	lbs/acre
Red Fescue	15
Alsike Clover	5

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: 

Comments: _____

Title: Inspector

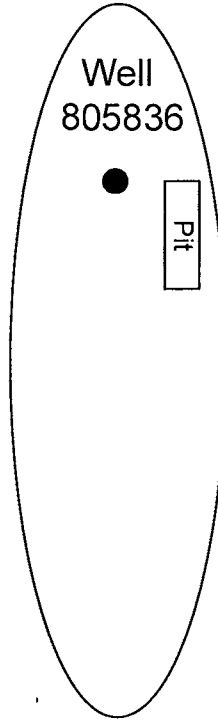
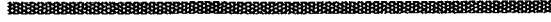
Date: 3-11-2019

Field Reviewed? Yes No

Diagram of Well 805836
API 47-099-00667
Field Office - Kermit
County - Wayne

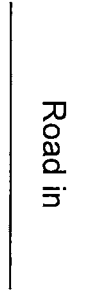
Surface Owner:
Wm. Meade Estate

Sediment Control



Small pit if needed

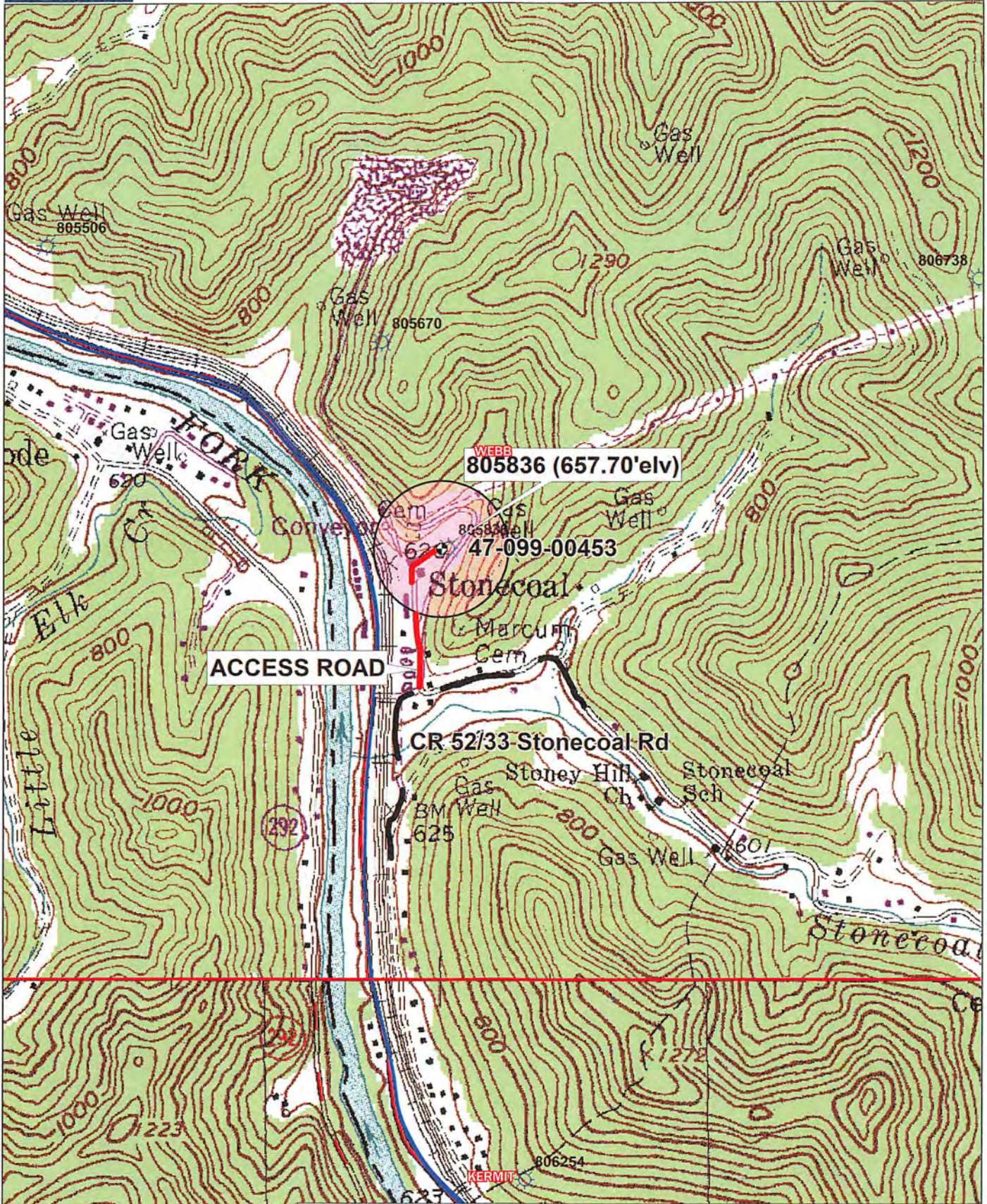
Road in



Note: No Land Application if pit is used

RECEIVED
Office of Oil and Gas
FEB 25 2019
WV Department of
Environmental Protection

Site Plan

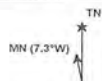


WELL 805836 P&A TOPO MAP

Data use subject to license.

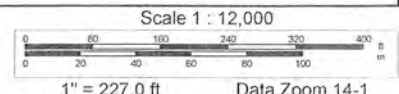
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www.delorme.com



RECEIVED
Office of Oil and Gas
FEB 25 2019

WV Department of
Environmental Protection



WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-099-00453 WELL NO.: 805836
 FARM NAME: Eula Parsley
 RESPONSIBLE PARTY NAME: Core Appalachia Operating, LLC
 COUNTY: Wayne DISTRICT: Kermit LINCOLN
 QUADRANGLE: Webb
 SURFACE OWNER: Wm. Meade Estate
 ROYALTY OWNER: Matthew King, ETAL
 UTM GPS NORTHING: 4193868.24m
 UTM GPS EASTING: 375447.66m GPS ELEVATION: 200.47m [657.70']

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

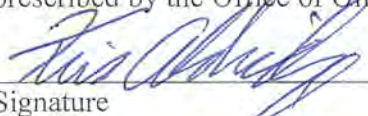
Real-Time Differential

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

EHS Specialist
Title

2/22/19
Date