



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

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Thursday, March 30, 2017
WELL WORK PERMIT
Vertical / Plugging

CHEVRON APPALACHIA, LLC (A)
POST OFFICE BOX 611

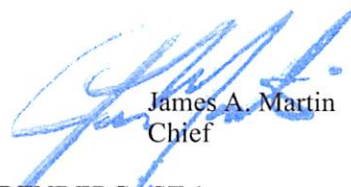
MOON TOWNSHIP, PA 15108

Re: Permit approval for PRENDERGAST 1
47-051-01113-00-00

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.

Please be advised that form WR-35, Well Operators Report of Well Work 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: PRENDERGAST 1
Farm Name: PRENDERGAST, MICHAEL
U.S. WELL NUMBER: 47-051-01113-00-00
Vertical / Plugging
Date Issued: 3/30/2017

Promoting a healthy environment.

03/31/2017

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 January 30, 2017
2) Operator's
Well No. Prendergast 1
3) API Well No. 47-051 - 01113

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 1389 Watershed Hickman Run
District Liberty County Marshall Quadrangle Littleton 7.5'

6) Well Operator Chevron Appalachia, LLC 7) Designated Agent _____
Address 800 Mountain View Dr Address _____
Smithfield, PA 15478

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name James Nicholson Name _____
Address P.O. Box 44 Address _____
Moundsville, WV 26041

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

see attached

WELL BORE MUST BE FILLED WITH GEL
BETWEEN EACH CEMENT PLUG.

GEL - FRESH WATER WITH A MINIMUM
OF 6% BENTONITE, (BY WEIGHT)

gwm

RECEIVED
Office of Oil and Gas

FEB 17 2017

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 James Nicholson Date 2/9/2017

Prendergast 1 P&A Procedure

EOT at 7,612'

5-1/2" x 9-5/8" Annulus Estimated Cement from 7,746' to 2,980'

1. R/U slickline perform gauge ring run
2. Kill well with KWF
3. Install plug in X-Nipple at approximately 7,584'
4. MIRU service rig
5. N/U BOP stack and test
6. Pull plug
7. Pull TBG hanger
8. Squeeze Marcellus and Burkett perforations with minimum 0.5 ppg over KWF class A with up to 3% CaCl cement from 7,638 to 7,400'
9. Pull production tubing and displace with minimum 0.5 ppg over KWF class A with up to 3% CaCl cement to approximately 3,000'
10. Install CIBP at approximately 2,995'
11. TIH with tubing
12. Cut 5-1/2" P110 Production casing at approximately 2,700'
- ★ 13. Attempt to pull production casing by pulling 5,000lbs over string weight
14. L/D 5-1/2" casing
 - a. If unsuccessful perforate 5-1/2" production casing at approximately 2,650'
 - b. Squeeze minimum 0.5 ppg over KWF class A with up to 3% CaCl cement to approximately 100'
15. TIH with work string
16. Pump minimum 0.5 ppg over KWF class A with up to 3% CaCl cement from approximately 2,995' to 100'.

Offline

1. Cut off Wellhead.
2. Install permanent monument (pipe to surface)
 - Cement remaining wellbore to surface
 - Minimum diameter of 6"
 - Pipe shall extend to a depth of 10' below GL into well
 - Pipe shall extend to a depth of >30" above GL
 - Monument shall be sealed with concrete
 - API well identification number shall be stamped on monument with lettering no smaller than 1/2"

RECEIVED
Office of Oil and Gas

FEB 17 2017

WV Department of
Environmental Protection

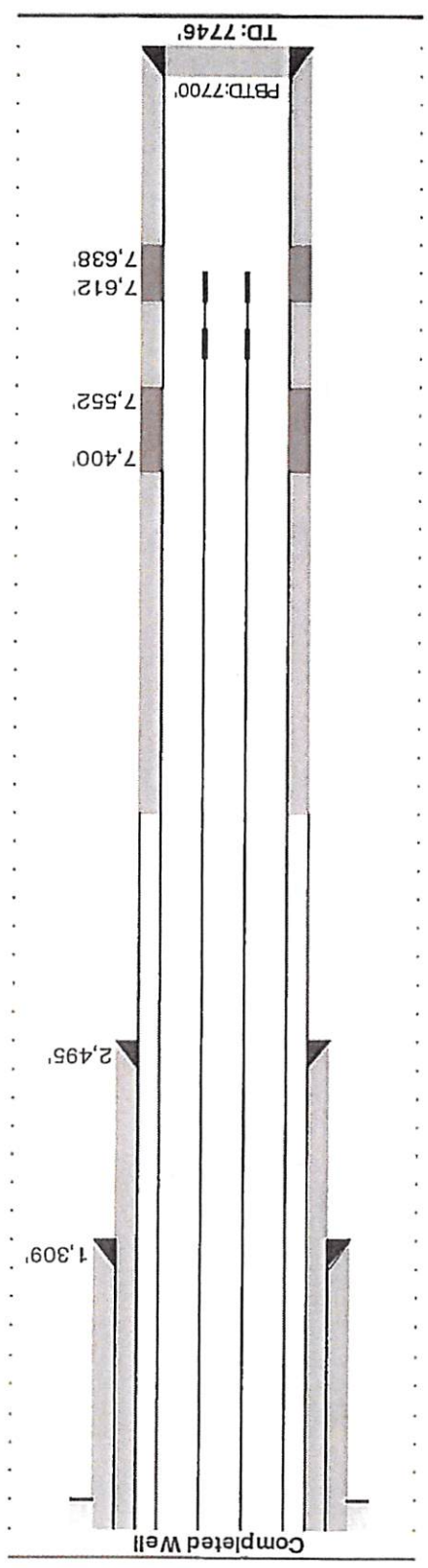
★ RIG MUST BE CAPABLE OF PULLING 150% OF CASING STRING WEIGHT. EVERY REASONABLE EFFORT NEEDS TO BE MADE TO CUT & PULL ENOUGH 5 1/2" CASING TO EXPOSE OPEN HOLE BELOW THE 9 5/8" CASING SHOULDER. THIS WILL ENABLE A CEMENT PLUG TO FILL A SECTION OF THE WELL THAT IS OPEN HOLE.

JNM

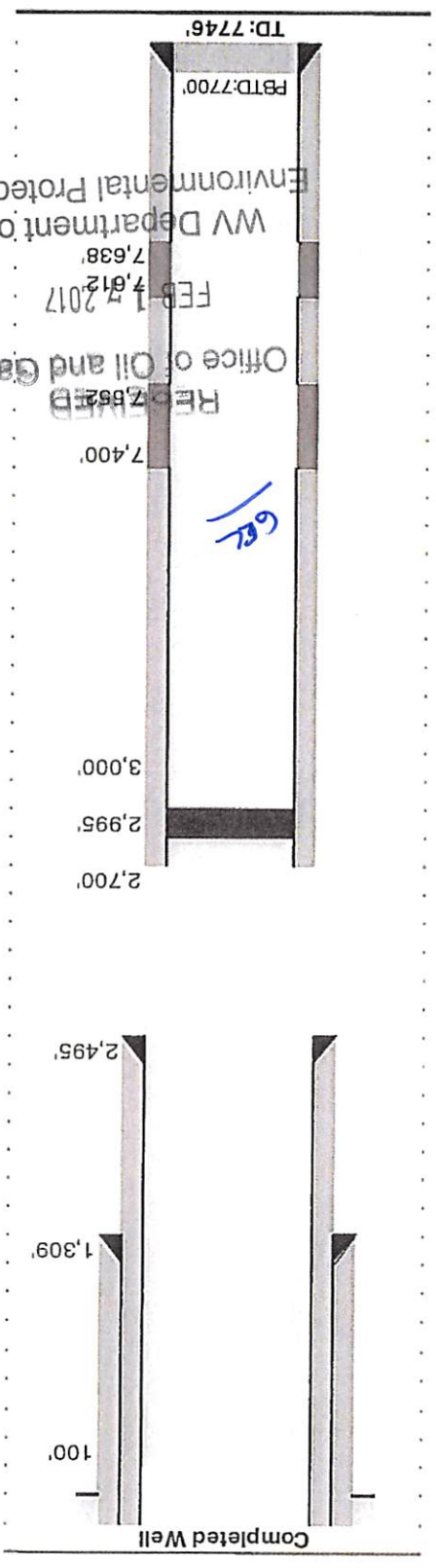
03/31/2017

510113A

BEFORE



AFTER



Office of Oil and Gas
 FEB 17 2017
 WV Department of
 Environmental Protection

510113P CR

WR-35

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

DATE: 11/20/2009
API#: 4705101113

Farm Name: Prendergast Operator Well #: 1
Location Elev. (ft): 1389 Quadrangle: Littleton
District: Cameron County: Marshall

LAT: 650 Ft South of: 39 Deg. 50 Min. 00 Sec.
LON: 5700 Ft West of: 80 Deg. 40 Min. 00 Sec.

Company: AB RESOURCES
Address: 6802 W Snowville Rd. Suite E
Brecksville, OH 44141
Agent: CT CORPORATION SYSTEMS
Inspector: Bill Halfield
Date Permit Issued: 2/29/2008
Date Work Commenced: 3/19/2008
Date Well Completed: 2/12/2009
Verbal Plugging: NA
Date Perm. Granted: NA
Drill Type: ROTARY
 CABLE
 RIG
Total Depth (ft): 7752
Fresh Water Depth (ft): NA
Salt Water Depth (ft): NA
Active Coal Mining: YES NO NA
Coal Depths (ft): NA

Csg/Tbg Diam"	Used in Drilling'	Left in Well'	Cement Fill (ft ³)
13 3/8	1309	1309	1352 CTS
9 5/8	2495	2495	1149
5 1/2	7699	7699	889
2 3/8	7612	7612	NA
RECEIVED Office of Oil & Gas FEB 16 2010 WV Department of Environmental Protection			

OPEN FLOW DATA

1st PRODUCING FORMATION: MARCELLUS PAY ZONE DEPTH (ft): 7590
 GAS: Init. Open Flow: Na MCF/d OIL: Init. Open Flow: Na Bbl/d
 Final Open Flow: Na MCF/d Final Open Flow: Na Bbl/d
 Time of open flow between initial and final tests: Na Hours
 (surface pressure) after Na Hours

ROCK Static Pressure: Na psig

2nd PRODUCING FORMATION: Na PAY ZONE DEPTH (ft): Na
 GAS: Init. Open Flow: Na MCF/d OIL: Init. Open Flow: Na Bbl/d
 Final Open Flow: Na MCF/d Final Open Flow: Na Bbl/d
 Time of open flow between initial and final tests: Na Hours
 (surface pressure) after Na Hours

ROCK Static Pressure: Na psig

Company Name: AB Resources
Signature: [Signature]
Name (PRINT): James K. Wilson
Date: 2/9/10

Submit to
West Virginia Department of Environmental Protection
Office of Oil and Gas
601 57th Street, SE
Charleston, WV 25304-2345
Phone (304) 926-0450
Fax: (304) 926-0452

03/31/2017

02/19/2010

$$\begin{array}{r} 889 \text{ CFT} \\ - 55 \text{ CFT} \\ \hline 844 \text{ CFT} \end{array}$$

3680 FT

$$\begin{array}{r} 7752 \\ - 3680 \\ \hline 4072 \end{array}$$

3752 FROM SURFACE TOC OF 5 1/2" ?

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

1) Well Operator AB Resources PA LLC Operator ID Marshall Liberty Littleton
County District Quadrangle

2) Operator's Well Number: Prendergast #1 3) Elevation: 1,389.1

4) Well Type: (a) Oil or Gas X
 (b) If Gas: Production X / Underground Storage
 Deep X / Shallow

5) Proposed Target Formation(s): Onondaga

6) Proposed Total Depth: 8,000 Feet

7) Approximate fresh water strata depths: 60 to 100 ft

8) Approximate salt water depths: None

9) Approximate coal seam depths: Pittsburgh 1204 ft

10) Does land contain coal seams tributary to active mine? No

11) Describe proposed well work Drill deep well in order to test and produce from the Marcellus Shale.

RECEIVED
 Office of Oil & Gas
 FEB 29 2008
 WV Department of
 Environmental Protection

*Do Not drill out of the Onondaga
 For Marcellus Completion GCS
 2/29/08*

12) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor	20"	J-55	90#	30'	30'	30 (24")
Fresh Water	13 3/8"	J-55	48#	1300'	1200'	903 (17 1/2")
Coal						Above
Intermediate	9 5/8"	J-55	36#	2500'	2500'	Cement Coal 470 (12 1/4")
Production	5 1/2"	P-110	20#		8000'	1010 (8 3/4")
Tubing	2 3/8"	J-55	4.7#	BH	2-28-08	
Liners						

Packers: Kind
 Sizes
 Depths Set

*CK 4/6/8
 \$650.00*

WW-4A
Revised 6-07

1) Date: 1-30-17
2) Operator's Well Number
Prendergast 1
3) API Well No.: 47 - 051 - 01113

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>Michael J. Prendergast</u> / <u>W</u>	Name <u>Consolidated Coal Company</u> /
Address <u>18 Hollen Circle</u>	Address <u>1000 Consol Energy Drive</u>
<u>Fairmont, WV 26554</u>	<u>Canonsburg, PA 15317</u>
(b) Name <u>Suellen Lemley</u> / <u>W</u>	(b) Coal Owner(s) with Declaration
Address <u>18 Hollen Circle</u>	Name _____
<u>Fairmont, WV 26654</u>	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>James Nicholson</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 44</u>	Name _____
<u>Moundsville, WV 26041</u>	Address _____
Telephone <u>304-552-3874</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.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
 Kristen Brooks, Notary Public
 Smithfield Boro, Fayette County
 My Commission Expires Sept. 2, 2018
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Well Operator Chevron Appalachia, LLC
 By: Jenny Hays
 Its: Permitting Team Lead
 Address 800 Mountain View Drive
Smithfield, PA 15478
 Telephone 724-564-3700

RECEIVED
Office of Oil and Gas

FEB 17 2017

Subscribed and sworn before me this 30th day of January, 2017
Kristen Brooks
 My Commission Expires Sept 2, 2018
 Notary Public
 Environmental Protection

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.

SURFACE OWNER WAIVER

Operator's Well
Number

Prendergast 1

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.

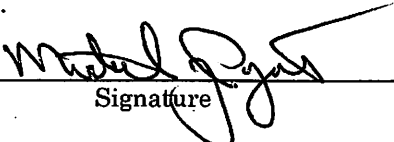
VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and **Office of Oil and Gas** 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.

RECEIVED
Office of Oil and Gas
FEB 17 2017
WV Department of
FOR EXECUTION BY A NATURAL PERSON
Environmental Protection


Date 2/8/17
Name _____
Signature
By _____
Its _____
Date _____

Signature

Date **03/31/2017**

510113P

WW-9
(5/16)

API Number 47 - 051 . 01113
Operator's Well No. Prendergast 1

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

Operator Name Chevron Appalachia, LLC OP Code 49449935
Watershed (HUC 10) Hickman Run Quadrangle Littleton 7.5'

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 _____)

ANY WELL EFFLUENT MUST
BE CONTAINED IN TANKS
AND DISPOSED OF OFF-SITE
IN A PROPER MANNER,
JWHM

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 Jenny Hayes
Company Official (Typed Name) Jenny Hayes
Company Official Title Permitting Team Lead

RECEIVED
Office of Oil and Gas
FEB 17 2017
WV Department of
Environmental Protection

Subscribed and sworn before me this 30th day of January, 20 17
Kristen Brooks Notary Public

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Kristen Brooks, Notary Public
Smithfield Boro, Fayette County
My Commission Expires Sept 2, 2018
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

My commission expires Sept 2, 2018

03/31/2017

Proposed Revegetation Treatment: Acres Disturbed 3.8 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 1000 lbs /acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Grain Rye	100
Annual Rye	20
Perennial Rye	10
Yellow Clover	5
Red Clover	5
White Clover	5
Alta Sweet Clover	5

Seed Type	lbs/acre
Grain Rye	100
Annual Rye	20
Perennial Rye	10
Yellow Clover	5
Red Clover	5
White Clover	5
Alta Sweet Clover	5

Attach:	Birdsfoot Trefoil	10	Birdsfoot Trefoil	10
	Fescue	40	Fescue	40

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: *[Signature]*

Comments: _____

RECEIVED
Office of Oil and Gas

FEB 17 2017

Title: Oil & Gas Inspector

Date: 2/9/2017
WV Department of Environmental Protection

Field Reviewed? Yes No

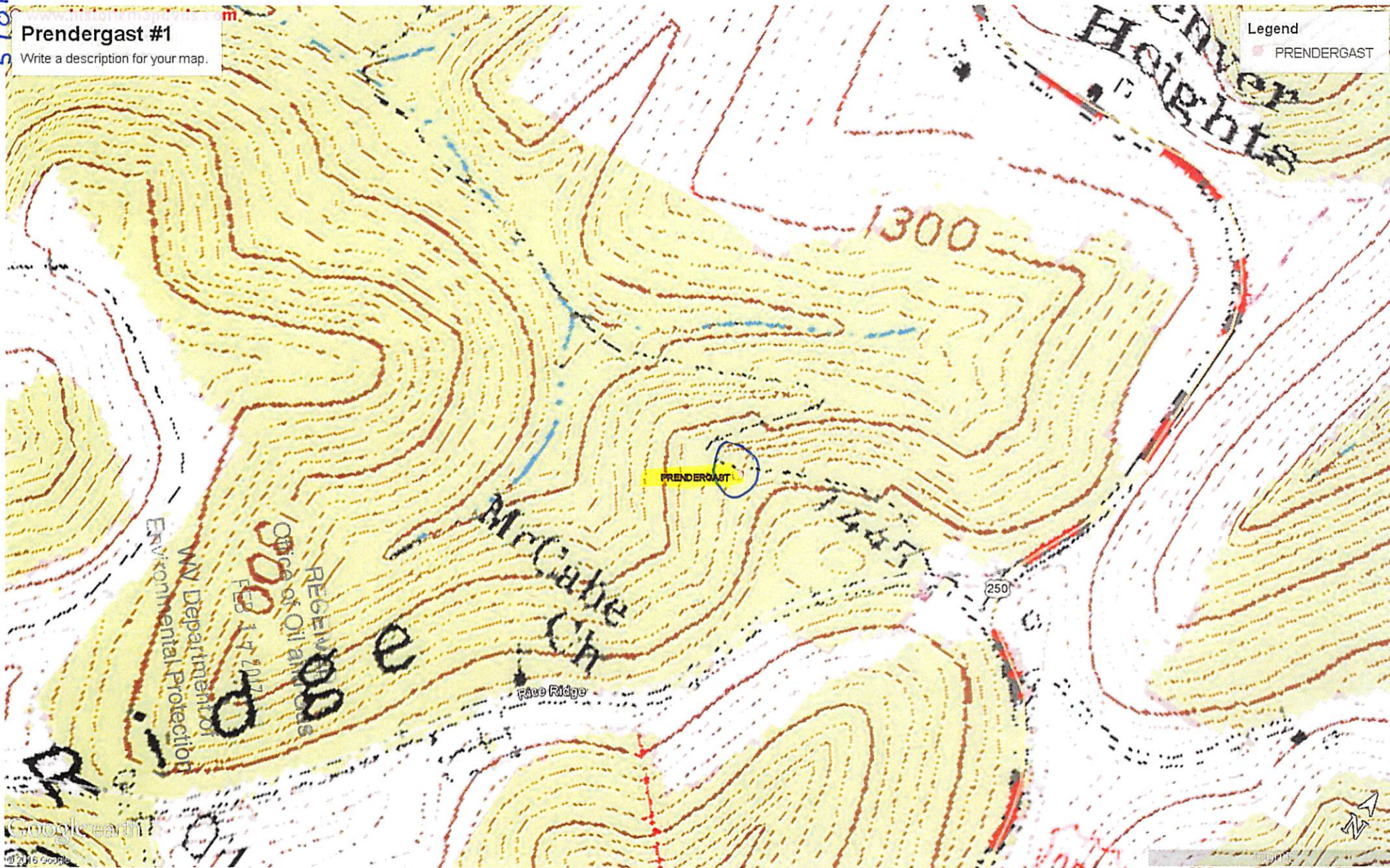
5101113

Prendergast #1

Write a description for your map.

Legend

- PRENDERGAST



RECEIVED
 OFFICE OF OIL AND GAS
 FEB 17 2017
 Environmental Protection
 NY Department of

510113 P

WW-7
8-30-06



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

API: 47-051-01113 WELL NO.: 1

FARM NAME: Prendergast

RESPONSIBLE PARTY NAME: Chevron Appalachia, LLC

COUNTY: Marshall DISTRICT: Liberty

QUADRANGLE: Littleton 7.5'

SURFACE OWNER: Michael Prendergast

ROYALTY OWNER: Michael Prendergast et al.

UTM GPS NORTHING: 4397643.3

UTM GPS EASTING: 539039.6 GPS ELEVATION: 1374'

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.

Jenny Hayes Signature Permitting Team Lead Title 1/30/17 Date

RECEIVED
Office of Oil and Gas
FEB 17 2017
WV Department of
Environmental Protection

03/31/2017