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**west virginia** department of environmental protection

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

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

November 21, 2013

**WELL WORK PERMIT**

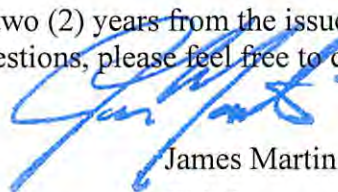
**Re-Work**

This permit, API Well Number: 47-8704716, issued to RAVEN RIDGE ENERGY, 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 all 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 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-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) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: C. E. LAMB 12  
Farm Name: WILLARD THOMPSON, ET UX  
**API Well Number: 47-8704716**  
**Permit Type: Re-Work**  
Date Issued: 11/21/2013

Promoting a healthy environment.

11/22/2013

45704716R

WW - 2B  
(Rev. 8/10)

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

CK #83233  
1100000

1) Well Operator: RAVEN RIDGE ENERGY, LLC 494485865 ROANE - 87 SMITHFIELD - 5 LOONEYVILLE - 444  
Operator ID County District Quadrangle

2) Operator's Well Number: CE LAMB 12 3) Elevation: 3,000'

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

5) Proposed Target Formation(s): BEREA Proposed Target Depth: 3,000'

6) Proposed Total Depth: 3,200 Feet Formation at Proposed Total Depth: 3,200'

7) Approximate fresh water strata depths: 200'

8) Approximate salt water depths: 1,300' - 1,800'

9) Approximate coal seam depths: NO COAL LISTED ON TITLE

10) Approximate void depths,(coal, Karst, other): NONE

11) Does land contain coal seams tributary to active mine? NO

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

SET PLUG; SQUEEZE AND DRILL OUT PLUG ON EXISTING WELL

CEMENT ACROSS  
PERFORATIONS TO  
SHUT OFF WATER  
FROM OUR COMPLETION  
STAGES  
JWH

13) CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE For Drilling	INTERVALS Left in Well	CEMENT Fill -up (Cu. Ft.)
	Size	Grade	Weight per ft			
Conductor						
Fresh Water	9 5/8"	J-55	27 LBS	350'	350'	EXISTING
Coal						
Intermediate	7"	J-55	17 LBS	1,800'	1,800'	EXISTING
Production	4 1/2"	J-65	10.5 LBS	2410'	2410'	EXISTING
Tubing						
Liners						

Packers: Kind: \_\_\_\_\_  
Sizes: \_\_\_\_\_  
Depths Set \_\_\_\_\_

Received

OCT 15 2013

11/22/2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

WW-2A  
(Rev. 6-07)

1.) Date: OCTOBER 10, 2013  
2.) Operator's Well Number CE LAMB 12  
State 47 County 087 Permit 04716

WV Department of  
Environmental Protection

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

CHECK # 8323  
\$1,100.00  
2 PERS. NS

4) Surface Owner(s) to be served:  
(a) Name WILLARD THOMPSON  
Address 1614 STRINGTOWN  
SPENCER, WV 25276  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector ED GAINER  
Address PO BOX 821  
SPENCER, WV 25276  
Telephone (304) 389-7582

AFFIDAVIT SERVICE  
P.A.A.

5) (a) Coal Operator  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

**TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:**

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

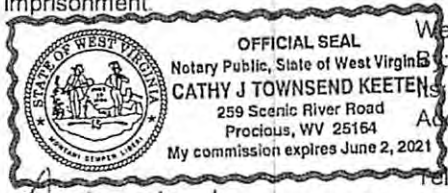
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_ on the above named parties by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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 and imprisonment



Well Operator RAVEN RIDGE ENERGY, LLC  
RYAN CUNNINGHAM  
OFFICER  
Address 3230 PENNSYLVANIA AVENUE  
CHARLESTON, WV 25302

Subscribed and sworn before me this 10 day of OCTOBER, 2013  
Cathy J. Townsend Keetens Notary Public  
My Commission Expires FEBRUARY 10, 2015 June 2, 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](mailto:depprivacyofficer@wv.gov)

Affidavit of Personal Service

State Of West Virginia  
County Of Roane

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) \_\_\_ / WW-3(A) \_\_\_ / WW-4(A) \_\_\_ / WW-5(A) \_\_\_ / WW-6(A) \_\_\_
- (2) Application on Form WW-2(B) \_\_\_ / WW-3(B) \_\_\_ / WW-4(B) \_\_\_ / WW-5(B) \_\_\_ / WW-6(B) \_\_\_
- (3) Plat showing the well location on Form WW-6, and
- (4) Construction and Reclamation Plan on Form WW-9

--all with respect to operator's Well No. CE Lamb 12 located in Smithfield District, Roane County, West Virginia, upon the person or organization named--

Lewis Thompson - POA for Willard Thompson  
--by delivering the same in Roane County, State of West Virginia on the 11<sup>th</sup> day of October, 2013 in the manner specified below

[COMPLETE THE APPROPRIATE SECTION]

For an individual:  
[ ] Handing it to him \_\_\_ / her \_\_\_ / or, because he \_\_\_ / she \_\_\_ / refused to take it when offered it, by leaving it in his \_\_\_ / her \_\_\_ / presence.

[  ] Handing it to a member of his or her family above the age of 16 years named Lewis Thompson who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible. POA for Willard Thompson

For a partnership:  
[ ] Handing it to \_\_\_\_\_, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:  
[ ] Handing it to the general partner, named \_\_\_\_\_, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:  
[ ] Handing it to the corporation's employee \_\_\_ / officer \_\_\_ / director \_\_\_ / attorney in fact \_\_\_ / named \_\_\_\_\_.

Dawn N. Upton  
(Signature of person executing service)

Taken, subscribed and sworn before me this 11<sup>th</sup> day of October 2013.  
My commission expires June 2, 2021.

Cathy Townsend Keeten  
Notary Public



Received  
OCT 15 2013  
Office of Oil and Gas  
WV Dept. of Environmental Protection

8704716R

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County ROANE Operator RAVEN RIDGE ENERGY, LLC  
Operator well number CE LAMB 12

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A**

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (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 57<sup>th</sup> 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 **FIFTEEN (15) 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 a 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.

**List of Water Testing Laboratories.** The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

**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 Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through \_\_\_ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

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

FOR EXECUTION BY A CORPORATION, ETC.

Louis Thompson POA  
Signature

Date 10/16/13

Company Name RAVEN RIDGE ENERGY, LLC  
By RYAN CUNNINGHAM ENERGY 10/10/13  
Date

Louis Thompson POA

Print Name

OFFICER

Signature

Date

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8(d)  
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
B AND R CONSTRUCTION	CUNNINGHAM ENERGY, LLC	1/8	234/397
KEOSAUZUA, LLC	CUNNINGHAM ENERGY, LLC	1/8	240/29
	SEE ATTACHED AGREEMENT		

**Acknowledgement of Possible Permitting/Approval  
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:  
By: Its:

RAVEN RIDGE ENERGY, LLC  
RYAN CUNNINGHAM  
OFFICER

**Received**  
**11/22/2013**

OCT 15 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

AGREEMENT


This agreement is made and entered into this 16<sup>th</sup> day of February, 2012 by and between Cunningham Energy, LLC, a West Virginia limited liability company and Raven Ridge Energy, LLC, a West Virginia limited liability company.

This agreement gives permission to Raven Ridge Energy to operate any leases (owned property or otherwise leased) maintained by Cunningham Energy, LLC for any and all past, current or future projects to be developed by or for Cunningham Energy, LLC.

CUNNINGHAM ENERGY, LLC

  
Owner

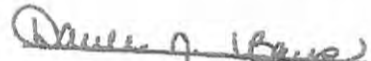
RAVEN RIDGE ENERGY

  
Officer

State of West Virginia  
County of Kanawha

The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of February, 2012 by Ryan E. M. Cunningham, Officer of Raven Ridge Energy, LLC., a West Virginia Limited Liability Company, on behalf of the company.




  
Notary Public

2/10/2015  
My Commission Expires

State of West Virginia  
County of Kanawha

The foregoing instrument was acknowledged before me this 16<sup>th</sup> day of February, 2012 by Ryan E. M. Cunningham, Owner of Cunningham Energy, LLC., a West Virginia Limited Liability Company, on behalf of the company.



  
Notary Public

2/10/2015  
My Commission Expires

Received

11/22/2013

OCT 15 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

8704716R

WW-9  
(5/13)

RECEIVED  
Office of Oil and Gas

Page \_\_\_\_\_ of \_\_\_\_\_  
API Number 47-087-04716  
Operator's Well No. CE LAMB 12

NOV 18 2013  
WV Department of  
Environmental Protection

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name RAVEN RIDGE ENERGY, LLC OP Code 494485865

Watershed (HUC 10) TRIBUTARY OF POCATALICO RIVER Quadrangle LOONEYVILLE

Elevation 862' County ROANE District SMITHFIELD

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

NO PIT

Will a pit be used for drill cuttings? Yes \_\_\_\_\_ No X

If so, please describe anticipated pit waste: THE PIT WILL ONLY BE USED FOR SERVICE RIG WATER

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? NO

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. AIR, FRESHWATER

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

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? \_\_\_\_\_

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, 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 \_\_\_\_\_

Company Official (Typed Name) RYAN CUNNINGHAM

Company Official Title OFFICER

Subscribed and sworn before me this 10 day of OCTOBER

*Cathy J. Townsend Keeten*

My commission expires 10/10/2013 June 2, 2021



11/22/2013



~~8704~~  
8704716 R

Form WW-9

Operator's Well No. CE LAMB 12

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 1/3 TON lbs/acre (500 lbs minimum)

Mulch HAY 2 Tons/acre


Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY- 31	40	ORCHARD GRASS	15
ALSIKE CLOVER	5	ALSIKE CLOVER	5
ANNUAL RYE	15		

Attach:  
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

RECEIVED  
Office of Oil and Gas

Plan Approved by: 

NOV 18 2013

Comments:

No Pit

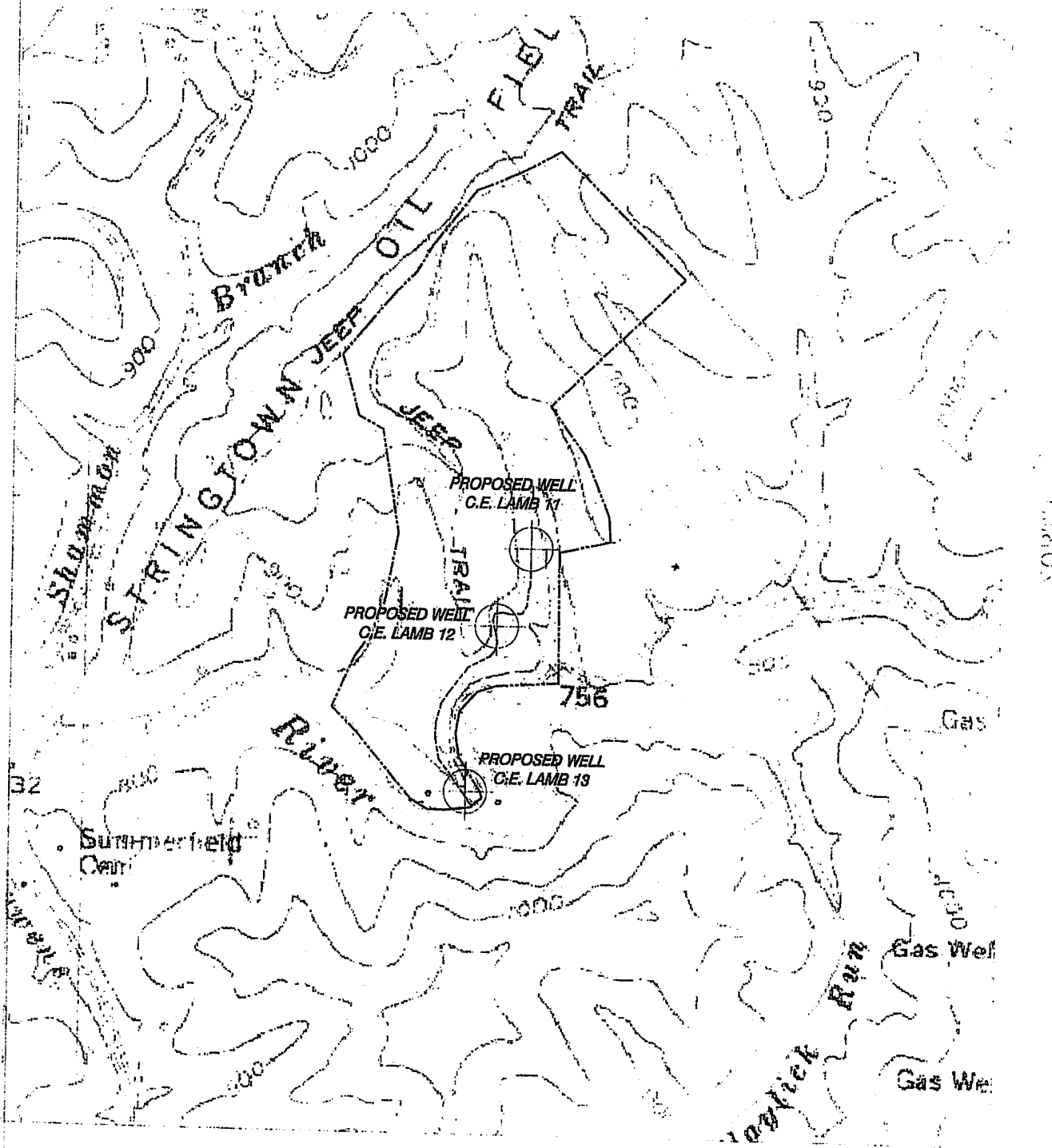
WV Department of  
Environmental Protection

Title: Inspector Date: 10/10/13

Field Reviewed? ( ) Yes (X) No



# RAVEN RIDGE ENERGY C.E. LAMB 12



**HUPP Surveying & Mapping**

PO BOX 677 GRAN SVR WV 26147  
Surveyor Registration No. 10000

1" = 1000'  
Mooneyville Quad

RAVEN RIDGE ENERGY  
3230 PENNSYLVANIA AVE.  
CHARLESTON, WV 25302

**Received**

OCT 15 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection



# C.E. LAMB LEASE 254 ACRES± C.E. LAMB 12

CHAPMAN  
25 ACRES±  
MAP 15  
PARCEL 29

THOMPSON  
131 ACRES±  
MAP 20  
PARCEL 8

C.E. LAMB 12  
UTM (NAD 83)  
(N) 4280320  
(E) 471595

C.E. LAMB 12  
STATE PLANE  
COORDINATES  
SOUTH ZONE  
(N) 608607  
(E) 1906728

C.E. LAMB 12  
L & L DECIMAL  
(N) 38.67092  
(E) 81.32668

LONGITUDE 81°17'30"

13,600'

LAT. 38°40'15.3"

### REFERENCES

7" WHITE OAK @ FIELD

N 33° W  
118.5' (SLOPE 121.5)

PROPOSED  
C.E. LAMB 12

24" SHAGBARK  
HICKORY IN  
FENCELINE

S 44° W  
99.5' (SLOPE 104.7)

McCOY  
76 ACRES±  
MAP 20  
PARCEL 20

47-087-02588

SMITH  
108 ACRES±  
MAP 21  
PARCEL 1

C.E. LAMB  
12

1392

1423

1548

1529

1505

1617

1982

4714

630

603

2400'

N 12° 30' E  
594.00'

N 31° E  
218.62'

N 39° 30' E  
132.00'

N 26° E  
255.75'

N 26° E  
255.75'

N 31° E  
218.62'

N 39° 30' E  
132.00'

N 12° 30' E  
594.00'

N 05° E  
1337'

N 54° E  
940'

S 01° E  
1006.30'

### NOTES ON SURVEY

TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.

TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 07-11-11. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 467 AT PAGE 456 AND INFORMATION PROVIDED BY RAVEN RIDGE ENERGY, LLC.

SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF KANAWHA COUNTY IN JUNE, 2011 AND INFORMATION PROVIDED BY RAVEN RIDGE ENERGY, LLC.

WELL LAT./LONG. ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE). PARCEL 31 AS SHOWN IS TAKEN FROM THE TAX MAPS FOR LOCATION PURPOSES DUE TO THE VAGUENESS OF THE METES AND BOUNDS DESCRIPTION.

POND

S 49° 49' W  
1204'

WITH ROAD

WITH ROAD

THOMPSON  
113 ACRES±  
MAP 20  
PARCEL 30

THOMPSON  
2 ACRES±  
MAP 20  
PARCEL 31

SERGENT  
137 ACRES±  
MAP 21  
PARCEL 12

48" WHITE OAK AT  
FENCE CORNER

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 DIVISION OF ENVIRONMENTAL PROTECTION.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE OCTOBER 18, 2013

OPERATOR'S WELL NO. C.E. LAMB 12

API WELL NO. 47-087-0471GR

STATE 47 COUNTY 087 PERMIT 0471GR

P.S.  
834

HUPP Surveying & Mapping  
P.O. Box 647 Grantsville, WV 26147  
(304) 354-7035 EMAIL: hupp@frontiernet.net

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. W2063 (BK51-37)  
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER GRADE) SCALE 1" = 500'

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



WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 862' WATERSHED TRIBUTARY OF POCATALICO RIVER  
DISTRICT SMITHFIELD COUNTY ROANE QUADRANGLE LOONEYVILLE 7.5'

SURFACE OWNER WILLARD THOMPSON, et ux ACREAGE 131 ± (TAXED)  
ROYALTY OWNER LOREN WESLEY ODELL, et al LEASE ACREAGE RECEIVED

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND RE-PLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION BEREA  
ESTIMATED DEPTH 3000'

WELL OPERATOR RAVEN RIDGE ENERGY, LLC. DESIGNATED AGENT RYAN CUNNINGHAM  
ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302 ADDRESS 3230 PENNSYLVANIA AVE. CHARLESTON, WV 25302

11/22/2013

Office of Oil and Gas

OCT 05 2013

WV Department of Environmental Protection

COUNTY NAME PERMIT