



west virginia department of environmental protection

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 24, 2014

WELL WORK PERMIT

Horizontal Well

This permit, API Well Number: 47-1502905, issued to CUNNINGHAM ENERGY, LLC, 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: KING 19H
Farm Name: TAYLOR, ROBERT
API Well Number: 47-1502905
Permit Type: Horizontal Well
Date Issued: 11/24/2014

Promoting a healthy environment.

11/28/2014

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.
9. Be advised that if you drill a horizontal gas well other than a coalbed methane well, which disturbs three acres or more of surface, excluding pipelines, gathering lines and roads, or utilizes more than two hundred ten thousand gallons of water in any thirty day period it would require a permit/bond under Chapter 22-6A.

4701502905H

10. Must monitor well 15-30022 (Plugged in 1944) during hydraulic fracturing process or other type of well stimulation.

11/28/2014

4701502905 HJK # 9089
\$650⁰⁰

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

1) Well Operator: CUNNINGHAM ENERGY, LLC 494508594 CLAY UNION ELKHURST 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: KING 19H 3) Elevation: 1,291'

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

5) Proposed Target Formation(s): BIG INJUN Proposed Target Depth: 2,150'

6) Proposed Total Depth: 5,200' TMD Feet Formation at Proposed Total Depth: BIG INJUN

7) Approximate fresh water strata depths: 200'

8) Approximate salt water depths: 1475' - 1525'

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? NONE

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
DRILL AND STIMULATE A NEW SHALLOW HORIZONTAL WELL. WE PLAN TO RUN THE PACKER PLUS SYSTEM HOWEVER IF THE LATERAL DOES NOT ALLOW THIS WE WILL RUN CEMENT TO SURFACE USING THE WEATHERFORD WET SHOE SYSTEM AND PERFORATE.

13) CASING AND TUBING PROGRAM

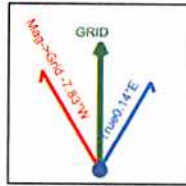
TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor	13"	LS	43.6 LBS	30	30	CTS
Fresh Water	9 5/8"	LS	26 LBS	400'	400'	CTS
Coal						
Intermediate	7"	J-55	20 LBS	1900'	1900'	CTS
Production	4 1/2"	N-80	11.6 LBS	5140'	5140'	PACKERS PLUS/CTS
Tubing						
Liners						

Packers: Kind: _____ Sizes: _____ Depths Set _____

OCT 30 2014

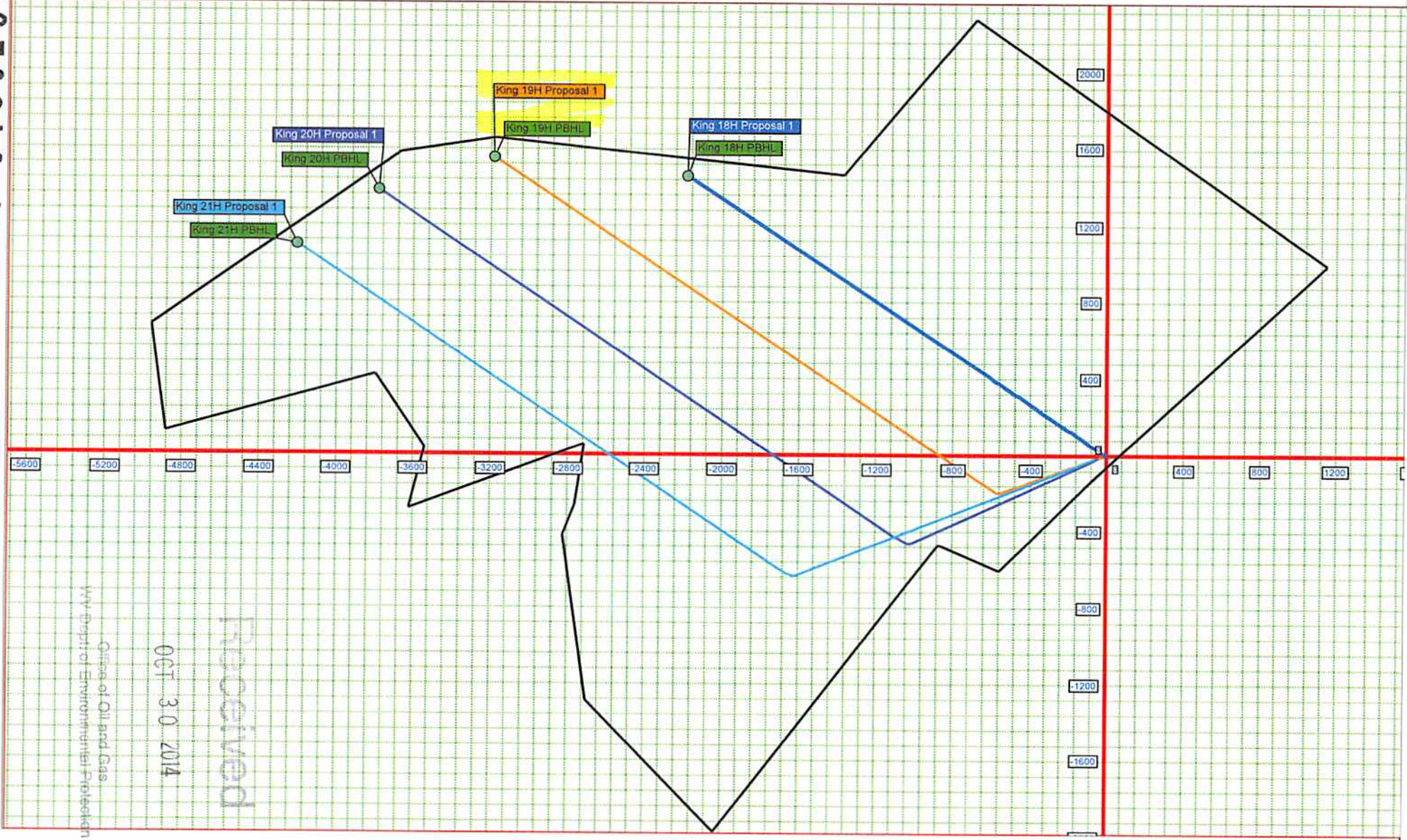


Job Number: King PAD
 Company: Cunningham Energy
 Lease/Well: King PAD
 Location: Southern Zone
 Rig Name:
 State/County: West Virginia/ Clay
 Country: USA
 API Number:



Elevation (To MSL): 1291.00 ft
 RKB: 9.00 ft
 Projection System: US State Plane 1927 (Exact solution)
 Projection Group: West Virginia South 4702
 Projection Datum: CLARKE 1866
 Magnetic Declination: -7.97
 Grid Convergence: -0.14041 W
 Date: Thursday, October 09, 2014

South - North 4701502905



Office of Oil and Gas
 WV Dept. of Environmental Protection
 OCT 30 2014
 RECEIVED

West - East



4701502905H

Mr. Jeffrey McLaughlin
WV DEP Office of Oil and Gas

Addendum to King 18H; 19H; 20H; 21H

Mr. McLaughlin:

The following wells were identified for plugging and/or have already been plugged to prevent communication during the frac process on our planned horizontal wells

King #1 – 47-01502886 - plugged
King #4 – 47-01502894 – plugged
J.S. Cochran 6H – 47-01502895

The following wells are producing wells at the same elevation that we have removed all surface equipment from and replaced with valves which we will monitor during both drilling and fracking:

J.S. Cochran #1 – 47-0150684
J.S. Cochran #2 – 47-01502883
J.S. Cochran #3 – 47-01502888
J.S. Cochran 4H – 47-01502897
J.S. Cochran 5H – 47-01502896
King #5 – 47-01502882
King #6 – 47-01502881
King #8 – 47-01502891
King #9 – 47-01502887
King #13 – 47-01502889
King #14 – 47-01502890
Young #2 – 47-0150688

★ MONITOR 15-30022 (PLUGGED IN 1944)
DURING FRAC.

Received

OCT 30 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

Connell Heirs #18 – 47-0150708 – We are working with Rouzer on this monitoring.

King #1 – 47-01500704 – We have sent notice to Charles Young via Certified Mail on 5/12/2014 and are working with him to proceed with this monitoring this well.

Daniel O. Thompson #1 – 47-01500603

In the opinion of Jim Rose, Petroleum engineer with Producers Service Corp, the treating pressures will be around 3500 psi. They will be using small stages at low rates.

Sincerely,

Danielle Boggs
Cunningham Energy, LLC

4701502905H



Select County: (015) Clay Select datatypes: (Check All)

Enter Permit #: 30022

Location Production Plugging

Owner/Completion Stratigraphy Sample

Pay/ShowWater Logs Btm Hole Loc

- [Table Descriptions](#)
- [County Code Translations](#)
- [Permit-Numbering Series](#)
- [Usage Notes](#)
- [Contact Information](#)
- [Disclaimer](#)
- [WVGES Main](#)
- ["Pipeline-Plus" New](#)

WV Geological & Economic Survey.

Well: County = 15 Permit = 30022

Report Time: Wednesday, November 19, 2014 5:41:29 PM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX_DISTRICT	QUAD_75	QUAD_15	LAT_DD	LONG_DD	UTME	UTMN
4701530022	Clay	30022	Union	Eikhurst	Clay	38.430481	-81.234724	479512.9	4253605.7

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR	PROP_VD	PROP_TRGT_FM
4701530022	4/23/1920	Original Loc	Completed	WP Griffith 2						United Fuel Gas Co.		

Completion Information:

API	CMP_DT	SPUD_DT	ELEV	DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	G_BEF	G_AFT	O_BEF	O_AFT	P_BEF	TI_BEF	P_AFT	TI_AFT
4701530022	4/23/1920	2/12/1920	1050	Ground Level	Rouzer	Undf	PRICE blw INJN	Big Injun (Price&Seq)	Development Well	Development Well	Oil w/ Gas Show	Cable Tool Shot	1926		1926	0	0	0	0	1	0	0	0

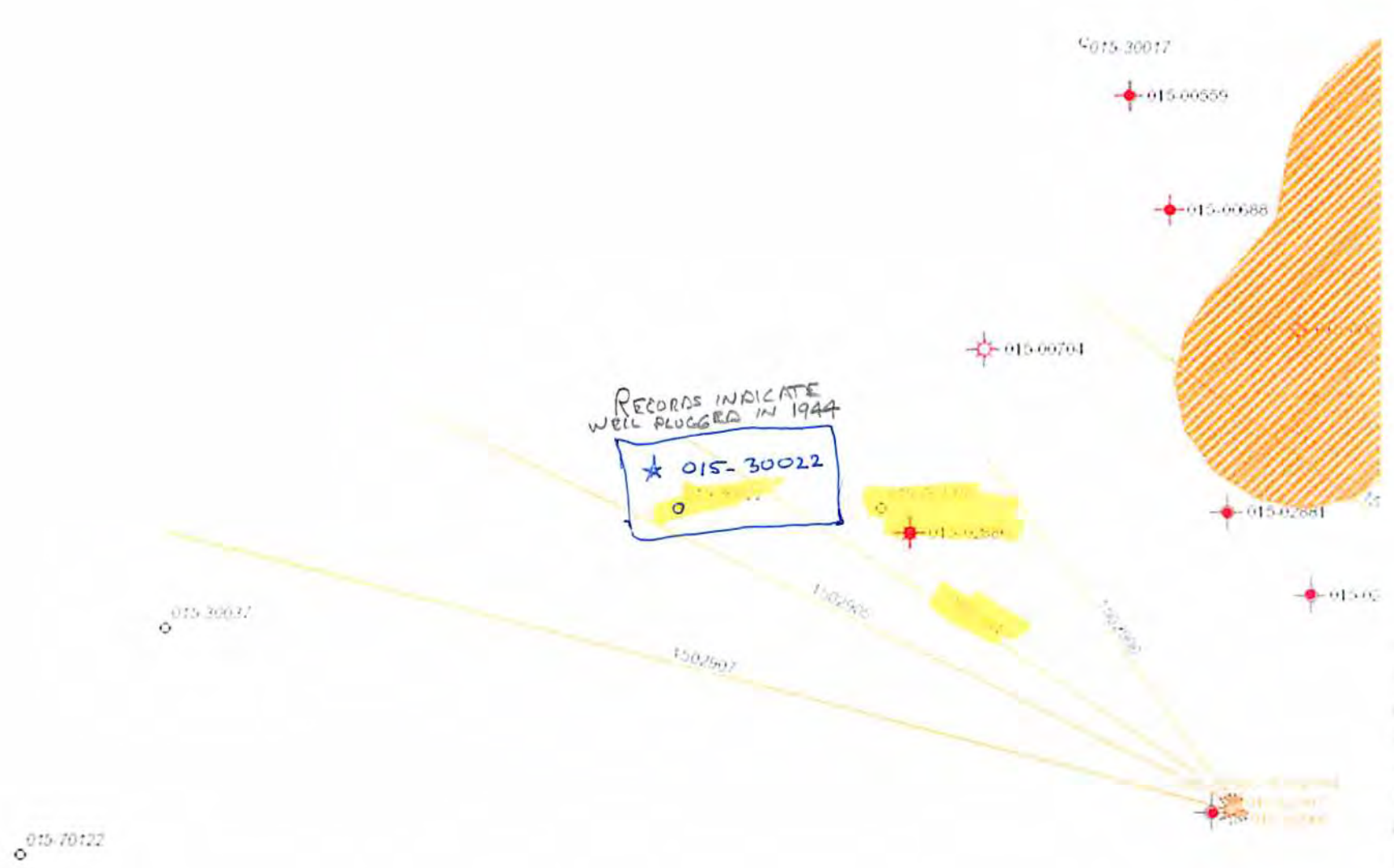
Pay/ShowWater Information:

API	CMP_DT	ACTIVITY	PRODUCT	SECTION	DEPTH_TOP	FM_TOP	DEPTH_BOT	FM_BOT	G_BEF	G_AFT	O_BEF	O_AFT	WATER_QNTY
4701530022	4/23/1920	Show	Gas	Vertical			960	undetermined unit	0	0			
4701530022	4/23/1920	Pay	Oil	Vertical	1900	Big Injun (Price&Seq)	1920	Big Injun (Price&Seq)	0	1			

Plugging Information:

API	PLG_DT	DEPTH_PBT
4701530022	6/8/1944	0

1" = 600'



4701502905 H

4701502905 H

WW-2A
(Rev. 6-07)

1). Date: JUNE 19, 2014
2.) Operator's Well Number KING 19H
State 47- County 15 Permit -
3.) API Well No.: 47- 15 -

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

4) Surface Owner(s) to be served:
(a) Name ROBERT TAYLOR ✓
Address 1967 BOMONT ROAD
BOMONT, WV 25030
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector ED GAINER
Address P.O. BOX 821
SPENCER, WV 25276
Telephone 304-389-7582
5) (a) Coal Operator
Name NONE
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
X Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

I certify that as required under Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

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)
- X 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.

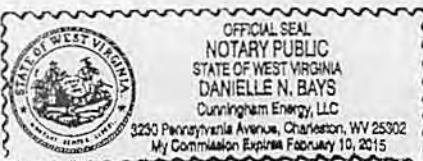
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator CUNNINGHAM ENERGY, LLC
By: RYAN E.M. CUNNINGHAM
Its: PRESIDENT
Address 3230 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302
Telephone 304-344-9291

Received

NOV 3 2014



Subscribed and sworn before me this 3rd day of JUNE, 2014

Danielle N. Bays
My Commission Expires FEBRUARY 10, 2015
Notary Public Office of Oil and Gas
Dept. of 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 depprivacyofficer@wv.gov

11/28/2014

4701502905H

7012 3460 0002 4924 4466

U.S. Postal Service™	
CERTIFIED MAIL™ RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 1.40
Certified Fee	3.30
Return Receipt Fee (Endorsement Required)	2.70
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 7.40

Postmark Here
OCT 29 2014
19-H

Sent To	Robert Taylor
Street, Apt. No., or PO Box No.	1967 Belmont Rel.
City, State, ZIP+4	Bomont WV 25030

PS Form 3800, August 2006 See Reverse for Instructions

Received

OCT 30 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

11/28/2014

**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
CUNNINGHAM ENERGY, LLC	CUNNINGHAM ENERGY, LLC	1/8	210/58

**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

received

OCT 30 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

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:



WW-2B1
(5-12)

Well No. KING 19H

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name STURM ENVIRONMENTAL
Sampling Contractor HUPP SURVEYING

Well Operator CUNNINGHAM ENERGY, LLC
Address 3230 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302
Telephone 304-344-9291

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

SEE ATTACHED

Received

OCT 30 2014

Office of Oil and Gas
West Virginia Department of Environmental Protection

11/28/2014

HUPP Surveying & Mapping 4701502905H

P.O. BOX 647

GRANTSVILLE, WV 26147

(304) 354-7035 hupp@frontiernet.net FAX: (304) 354-6548

June 2, 2014

RE: Water Samples for King 19H

There appears to be one (1) potable water sources within 1,500' of King 19H, therefore tests should be offered and samples taken as required.

1. Robert Wayne Taylor
1967 Bomont Rd.
Bomont, WV 25030
Tax Map 17 Parcels 46 & 47

SAMPLE MUST BE TAKEN

Received

OCT 30 2014

Office of Oil and Gas
West Virginia Department of Environmental Protection

11/28/2014

4701502905 H

7012 3460 0002 4924 2547

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OFFICIAL USE

Postage	\$	1.49
Certified Fee		3.30
Return Receipt Fee (Endorsement Required)		2.70
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	6.49

Postmark Here


19-H

Sent To **Robert Taylor**
 Street, Apt. N or PO Box No. **1967 Bomont Road**
 City, State, Zi **Bomont, WV 25030**

PS Form 380

Received

OCT 30 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

11/28/2014

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name CUNNINGHAM ENERGY, LLC OP Code 494508594

Watershed (HUC 10) TRIBUTARY OF WADE-FORK Quadrangle ELKHURST 7.5'

Elevation 1,291' County CLAY District UNION

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

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

If so, please describe anticipated pit waste: DRILL CUTTINGS, FLUIDS FROM DRILING AND FRACTURING

Will a synthetic liner be used in the pit? Yes X No _____ If so, what ml.? 30 MIL.

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number 2D0392210 - IF NEEDED)
- 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, petrolcum, etc. _____

Additives to be used in drilling medium? SOAP; KCL and/or CLAY STABILIZER

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. LEAVE IN PIT/HAUL IF NEEDED

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) CEMENT & LIME

-Landfill or offsite name/permit number? CITY OF CHARLESTON LANDFILL

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 [Signature]

Company Official (Typed Name) RYAN E. M. CUNNINGHAM

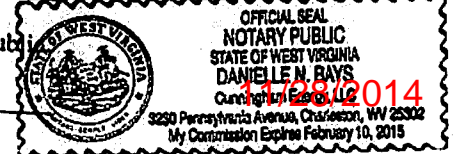
Company Official Title PRESIDENT

Office of Oil and Gas
WV Dept. of Environmental Protection

Subscribed and sworn before me this 31st day of JUNE October, 20 14

My commission expires 02/10/2015

Notary Public



4701502905H

Form WW-9

Operator's Well No. KING 19H

Proposed Revegetation Treatment: Acres Disturbed 2.75 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

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
KY 31	40	ORCHID 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.

Plan Approved by: 

Comments: Sediment protection in place at all times!

Title: Inspector Date: 10/29/14

Field Reviewed? Yes No

Received

OCT 30 2014

CUNNINGHAM ENERGY, LLC. KING 19H

Form W-9

Page 1 of 1

470150290511

TAYLOR
MAP 17
PARCEL 46

TAYLOR
MAP 17
PARCEL 53



Drawing Not To Scale NORTH

Install Minimum 12" Culvert

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS, TRAPS AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFYING TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

CONTRACTORS/COMPANY ARE RESPONSIBLE FOR LOCATING UTILITIES WHETHER SHOWN ON THIS PLAN OR NOT.

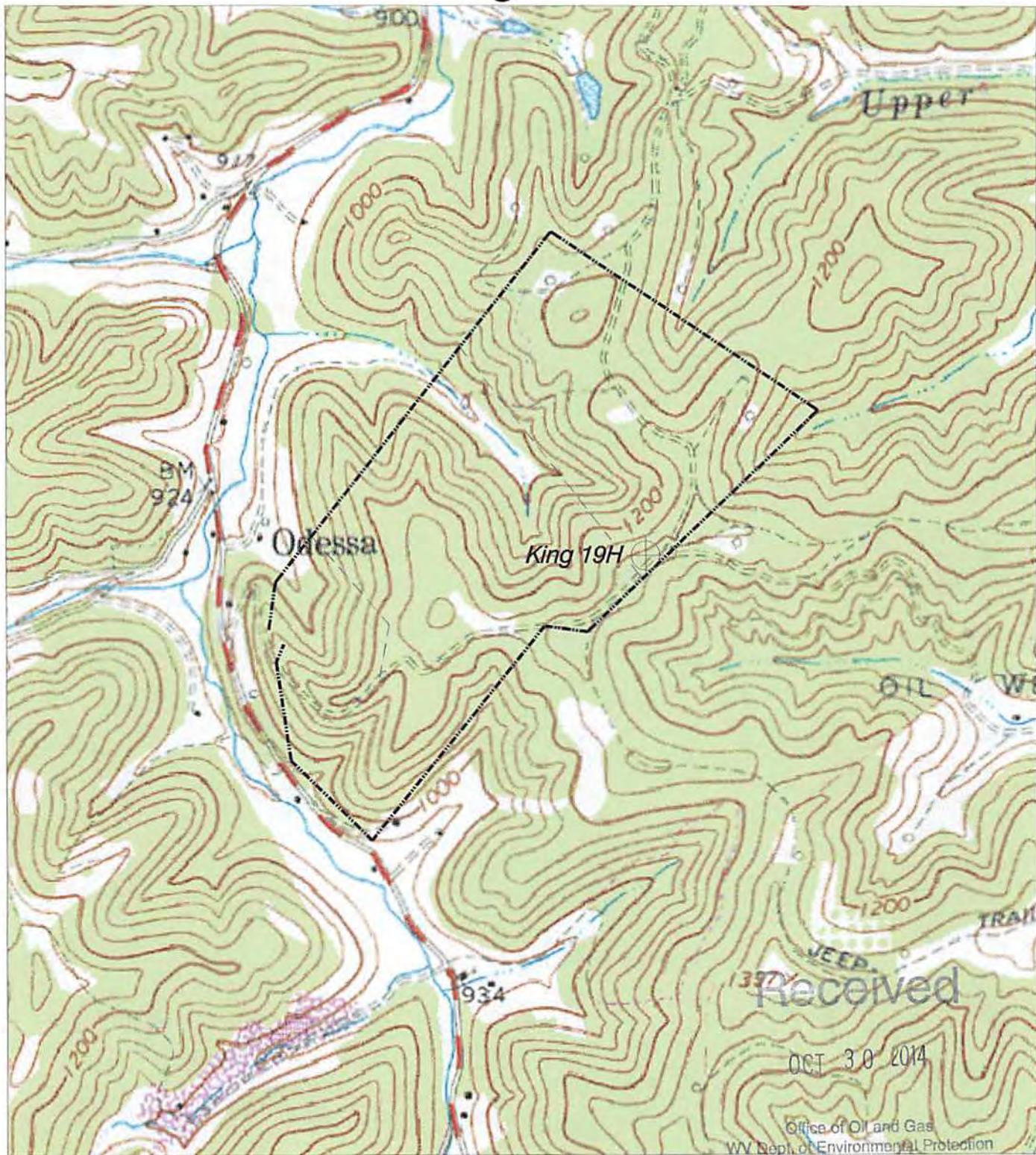
TEMPORARILY SEED AND MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION CUT AND STACK ALL TIMBER ABOVE 6-INCHES IN DIAMETER AND THICKER. STACK BRUSH BELOW LOCATION FOR SEDIMENT CONTROL.

received
OCT 30 2014
Office of Oil and Gas
Dept. of Environmental Protection

HUPP Surveying & Mapping P.O. BOX 647 GRANTSVILLE, WV 26147 PH: (304)354-7035 E-MAIL: hupp@frontiernet.net	Drafted BY:	Date Drafted:	Job Number:
	DB	10/27/14	W20122138

11/28/2014

Cunningham Energy, LLC. King 19H



NORTH

HUPP Surveying & Mapping

P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

1" = 1000'
Elkhurst Quad

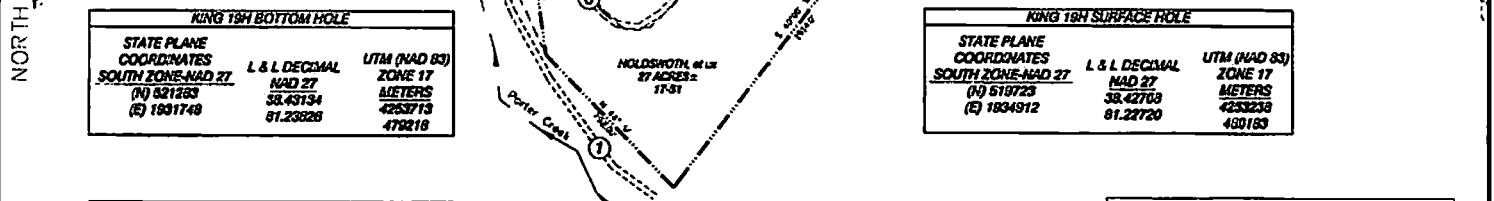
Cunningham Energy
3230 Pennsylvania Ave.
Charleston, WV 25302

11/28/2014

KING 19H

LONGITUDE 81°12'30"

NORTH

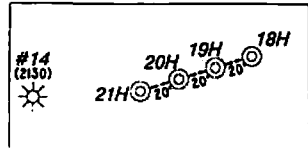


KING 19H BOTTOM HOLE		
STATE PLANE COORDINATES	L & L DECIMAL	UTM (NAD 83)
SOUTH ZONE-NAD 27	NAD 27	ZONE 17
(N) 821263	58.43134	METERS
(E) 1831748	81.23028	4253713
		478218

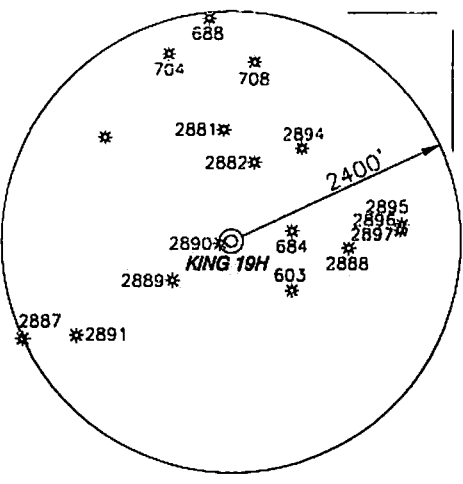
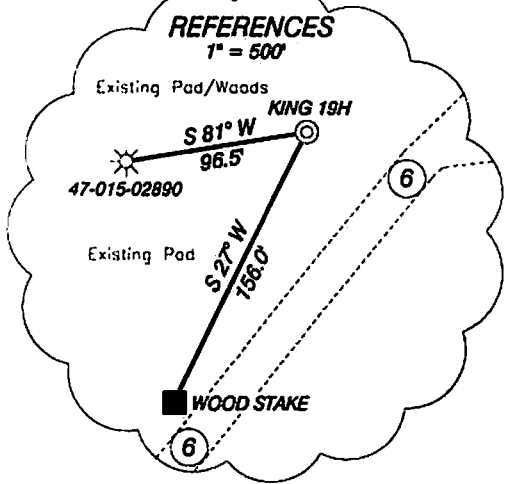
KING 19H SURFACE HOLE		
STATE PLANE COORDINATES	L & L DECIMAL	UTM (NAD 83)
SOUTH ZONE-NAD 27	NAD 27	ZONE 17
(N) 519723	38.42708	METERS
(E) 1834912	81.22720	4233238
		480168

KING 19H LANDING POINT		
STATE PLANE COORDINATES	L & L DECIMAL	UTM (NAD 83)
SOUTH ZONE-NAD 27	NAD 27	ZONE 17
(N) 819820	38.42635	METERS
(E) 1834375	81.22908	4253179
		480018

KING 19H		
LEASE	LESSOR	ACREAGE
1	CUNNINGHAM ENERGY, LLC.	228±



LINE LEGEND	
LEASE BOUNDARY	---
SURFACE BOUNDARY	----
CREEK/STREAM	~~~~~
ROADS	==>
PROPOSED LATERAL
500' LATERAL OFFSET

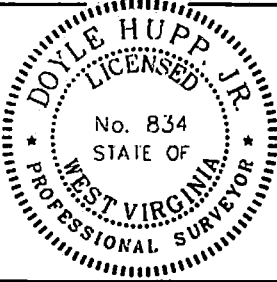


- NOTES ON SURVEY**
- NO DWELLINGS WITHIN 625' WERE FOUND.
 - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
 - TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WY SOUTH ZONE NAD '27.
 - WELL LAT./LONG. ESTABLISHED BY SG-CPS(OPUS).
 - SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF CLAY COUNTY IN JANUARY, 2014 AND INFORMATION PROVIDED BY CUNNINGHAM ENERGY, LLC.
 - WELLS SHOWN ARE TAKEN FROM RECORDS OF WJDEP

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 834

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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE JUNE 2, 2014
 OPERATORS WELL NO. KING 19H
 API WELL NO. 47-015-02905H
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. W2138 (BK71-1)
 PROVEN SOURCE OF ELEVATION SG-GPS (OPUS) SCALE 1" = 1000'

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 1291' WATERSHED TRIBUTARY OF PORTER CREEK
 DISTRICT UNION COUNTY CLAY QUADRANGLE ELKHURST 7.5'

SURFACE OWNER ROBERT TAYLOR ACREAGE 51±
 ROYALTY OWNER CUNNINGHAM ENERGY, L.C. LEASE ACREAGE 228± **11/28/2014**

PROPOSED WORK : LEASE NO.
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION BIG INJUN
 ESTIMATED DEPTH TVD- 2,150' MD-5,200'

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

COUNTY NAME PERMIT



September 26, 2014

Re: King 18H, 19H, 20H, 21H
 Original Lessor(s): King
 156 Acres, more or less
 Union District, Clay County, West Virginia

Statement on Road Searches in Clay County, WV

The writer has researched the records of the Office of the Clay County Clerk in reference to the following curative requirement:

According to John McHugh, Right of Way attorney for the West Virginia Department of Transportation, numerous Clay county roads were accepted into the state road system in 1931, pursuant to W. Va. Code § 17-2A-8, and were included in the 1933 "Scrolls of the State Road Commission of West Virginia." This is a list of all of the roads that transferred from county to state control.

Whatever interest Clay County had in a particular county road in 1931 was the same interest that the State acquired at that time- no more or no less. Many county roads were acquired by prescriptive easement and consist of a right-of-way only over the surface. However, some were acquired by deed in fee simple. Therefore, because the state road commission acquired whatever interest the county had, to determine if the state of West Virginia owns the minerals under a particular road in fee simple or merely has an easement, it will depend upon the particular circumstance of acquisition.

According to John McHugh, Right of Way attorney for the West Virginia Department of Transportation, absent evidence of acquisition that a particular roadway was acquired in fee simple, the road is presumed to be an easement, and therefore will not require the state of West Virginia to sign an Oil and Gas lease.

A search was conducted for the property covered by the above listed Title Opinion, and no record of acquisition has been found in the Clay County records covering any roads that may cross or border the property.

Because no fee simple deeds have been found in the Office of the Clay County Clerk covering any roads that may cross or border the property covered by the above listed Title Opinion, it is the writer's understanding from all known evidence that any road that may cross or border the property is an easement only, and will not require an oil and gas lease from the state of West Virginia.

Thank you for your time and attention,

Sincerely,

Ryan E. M. Cunningham
 President
 Cunningham Energy, LLC

Received

OCT 30 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

11/28/2014