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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](http://www.dep.wv.gov)

September 11, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-4500418, issued to ICG TYGART VALLEY, 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.

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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

  
James Martin  
Chief

Operator's Well No: 9887  
Farm Name: BOONE COUNTY COAL CORP  
**API Well Number: 47-4500418**  
**Permit Type: Plugging**  
Date Issued: 09/11/2015

**Promoting a healthy environment.**

**09/11/2015**

## 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.

1) Date August 24, 20 15  
2) Operator's  
Well No. 9887  
3) API Well No. 47-045 - 00418

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 \_\_\_/ Liquid injection \_\_\_/ Waste disposal \_\_\_/  
(If "Gas, Production \_\_\_ or Underground storage \_\_\_) Deep \_\_\_/ Shallow X

5) Location: Elevation 1130 Watershed Trace Branch of Spruce Fork of the Little Coal River  
District Logan County Logan Quadrangle Logan (442)

6) Well Operator ICG Tygart Valley, LLC 7) Designated Agent Charles E. Duckworth  
Address 2708 Cranberry Square Address 1200 Tygart Drive  
Morgantown, WV 26508 Grafton, WV 26354

8) Oil and Gas Inspector to be notified Name Ralph Triplett 9) Plugging Contractor Name Coastal Drilling East, LLC  
Address 5539 McClellan Hwy Address 130 Meadows Ridge Road  
Branchland, WV 25506 Mt. Morris, PA 15349

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

See Plugging Plans - Exhibit Nos. 1 and 2

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

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Work order approved by inspector Ralph D. Triplett Date SEP 08 2015  
09/03/15

09/11/2015  
Environmental Protection

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101C  
EXHIBIT NO. 1

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From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, ICG Tygart Valley, LLC will utilize the following method to plug all future wells.

**SOLID PLUG METHOD**

- a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.
- b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
- c) Circulate through tubing or drill steel an expanding cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".

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N.Y. Department of  
Environmental Protection 09/11/2015



450048P



Coastal Drilling East LLC • 130 Meadow Ridge Road, Mt. Morris, PA 15349  
Phone 304-296-1120 Fax 304-413-0061

"A Shaft Drillers International Company"

08/21/2015

Mr. Chuck Duckworth  
Gas Well & Property Manager  
Arch Coal, Inc. – Leer Mine Complex  
1200 Tygart Drive  
Grafton, WV 26354

RDT  
09/03/15

Mr. Duckworth,

Coastal Drilling East, LLC. is pleased to provide you and your company with a plugging plan to complete Well #9887 near Logan, WV.  
Please keep in mind this plugging plan is based on the information taken from the Affidavit Of Plugging and Filling Well Report. If the information provided on the report is not correct it could change the plan to plug this well. Also, if well conditions are different than expected it could change the plugging plan as well.

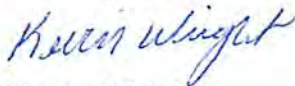
Cleanout/Plugging Plan

- Day 1 – Move to site, rig up, mix mud, drill rathole
- Day 2 – Finish drilling rathole, start cleaning the hole with 12 ¼” bit from surface. Previous plugging affidavit indicates that the 12 ¼’ bit will go to the bottom of the 10 ¾” casing at 582’.
- Day 3 – Continue to clean hole with 12 ¼” bit. Previous plugging affidavit indicates the 12 ¼ bit will be drilling in cement, aquagel stone and clay
- Day 4 – Continue to clean hole with 12 ¼” bit. Previous plugging affidavit indicates the 12 ¼” bit will be drilling in cement, aquagel, stone and clay.

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- Day 5 – Trip out of the hole (T.O.H) with 12 1/4” bit. Reduce bit size from 12 1/4” to 9 7/8” at 582’. Start cleaning hole with 9 7/8” bit from 582’. Previous plugging affidavit indicates the 9 7/8” bit will be drilling in aquagel.
- Day 6 – Continue to clean hole with 9 7/8” bit. Previous plugging affidavit indicates the 9 7/8” bit will be drilling in aquagel
- Day 7 – Continue to clean hole with 9 7/8” to total depth at 1,363’. Previous plugging affidavit indicates the a cement plug was placed at 1,363’.
- Day 8 – Trip out of the hole (T.O.H) with 9 7/8” bit.  
Log hole (caliper, collar locator, natural gamma and deviation logs).  
Laydown drill collars and prepare to cement hole to surface
- Day 9 – Cement hole from 1363’ to surface per MSHA’s 101C Petition using 425 sacks of Expandable Cement and 225 sacks of Thixotropic Cement. Rig down equipment and prepare to move rig to next site

Thank you,



Kevin Wright  
Coastal Drilling East, LLC.

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COASTAL  
DRILLING - EAST  
Environmental Protection

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STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

Boone County Coal Corporation  
COAL OPERATOR OR OWNER  
Sharples, W. Va.  
ADDRESS  
Guyan Eagle Coal Company  
COAL OPERATOR OR OWNER  
Amherstdale, W. Va.  
ADDRESS  
Same  
LEASE OR PROPERTY OWNER  
ADDRESS

Hope Natural Gas Company  
NAME OF WELL OPERATOR  
445 West Main St., Clarksburg, W. Va.  
COMPLETE ADDRESS  
May 10, 19 55  
WELL AND LOCATION  
Logan, District  
Logan, County  
Well No. 9887  
Boone County Coal Corporation Farm

STATE INSPECTOR SUPERVISING PLUGGING.....

AFFIDAVIT

STATE OF WEST VIRGINIA,

County of Logan ss:

George E. Muhlbauer and Emery T. Rogers  
being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Hope Natural Gas Company, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 24 th day of March, 19 55, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FORMATION	FILLING MATERIAL	PLUGS USED	CASING	
				SIZE & KIND	CSG FULLED / CSG LEFT IN
Coal	43 - 45	Aquagel 2647 - 2406			
Coal	518 - 522	Cement 2406 - 2386		16"	
Maxon	2113 - 2140	Aquagel 2386 - 2093		None	19'1"
Lower Maxon	2267 - 2287	Cement 2093 - 2073			
Little Lime	2287 - 2357	Aquagel 2073 - 1371		10-3/4"	
Big Lime	2369 - 2629	Stone & Clay 1371 - 1363		582'	None
Total Depth	2647	Cement 1363 - 1343			
		Aquagel 1343 - 560		8-5/8"	
		Stone & Clay 560 - 552		1545'	44'
		Cement 552 - 500			
		Aquagel 500 - 348		7"	
		Stone & Clay 348 - 340		1640'	781'
		Cement 340 - 240			
		Aquagel 240 - 83			
		Stone & Clay 83 - 75		3 3/4" Tbg.	
		Cement 75 - Surface		2629'	None

COAL BEAMS	DESCRIPTION OF MONUMENT
(NAME)	Concrete wall monument erected over hole marked H.N.G.Co. Well # 9887
(NAME)	
(NAME)	
(NAME)	

and that the work of plugging and filling said well was completed on the 10 th day of May, 19 55.

And further deponents saith not.

Sworn to and subscribed before me this 11 day of May, 19 55.

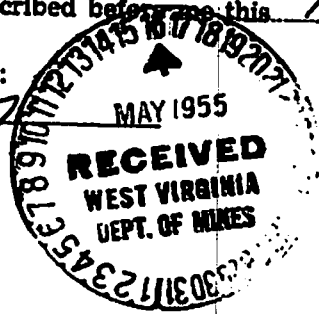
My commission expires: 6/4/57

George E Muhlbauer  
Emery T Rogers  
L. J. Reed

09/11/2015

Notary Public.

Permit No. 89-418-P





# WELL RECORD

Permit No. LOG-418

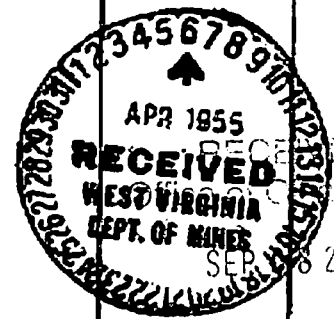
Oil or Gas Well Dry (Gas)  
(Type)

Company Hopa Natural Gas Company  
 Address 445 West Main St., Clarkburg, W. Va.  
 Farm Roane County Coal Corp. Acres 29,000  
 Location (waters) \_\_\_\_\_  
 Well No. 9887 Elev. 1130'  
 District Logan County Logan  
 The surface of tract is owned in fee by \_\_\_\_\_  
 Address \_\_\_\_\_  
 Mineral rights are owned by \_\_\_\_\_  
 Address \_\_\_\_\_  
 Drilling commenced 10-23-54  
 Drilling completed 2-22-55  
 Date Shot Acidized From \_\_\_\_\_ To \_\_\_\_\_  
 With \_\_\_\_\_  
 Open Flow /10ths Water in \_\_\_\_\_ Inch  
 /10ths Merc. in \_\_\_\_\_ Inch  
 Volume 35 M Cu. Ft.  
 Rock Pressure 375# lbs. \_\_\_\_\_ hrs.  
 Oil None bbls., 1st 24 hrs.  
 Fresh water 45' feet \_\_\_\_\_ feet  
 Salt water 1425 - 30' feet \_\_\_\_\_ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
18	19	19	Kind of Packer
19			
10	577	577	Size of
8 1/4	1574	1574	
8 3/4	2398	2398	Depth set
6 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
7" casing set in 20 bags cement  
 COAL WAS ENCOUNTERED AT 43 FEET 24 INCHES  
518 FEET 48 INCHES FEET INCHES  
 FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	19			
Sand			19	43			
Coal			43	45			
Sand			45	195	water	45'	
Slate			195	230			
Lime			230	255			
Sand			255	288			
Slate			288	311			
Lime			311	327			
Sand			327	352			
Slate & Shells			352	415			
Sand			415	463			
Slate & Shells			463	518			
Coal			518	522	Show of gas in coal		
Sand			522	604			
Slate			604	618			
Sand			618	710			
Black Slate			710	775			
Sand			775	800			
Slate			800	869			
Lime			869	900			
Slate & Shells			900	930			
Lime			930	942			
Slate			942	950			
Sand			950	1000			
Slate			1000	1072			
Sand			1072	1223			
Slate			1223	1228			
Sand			1228	1279			
Slate & Shells			1279	1383			
Sand			1383	1550			
Lime			1550	1563			
Sand			1563				



WV Dept. of Environment & Natural Resources  
 Salt Water 1425  
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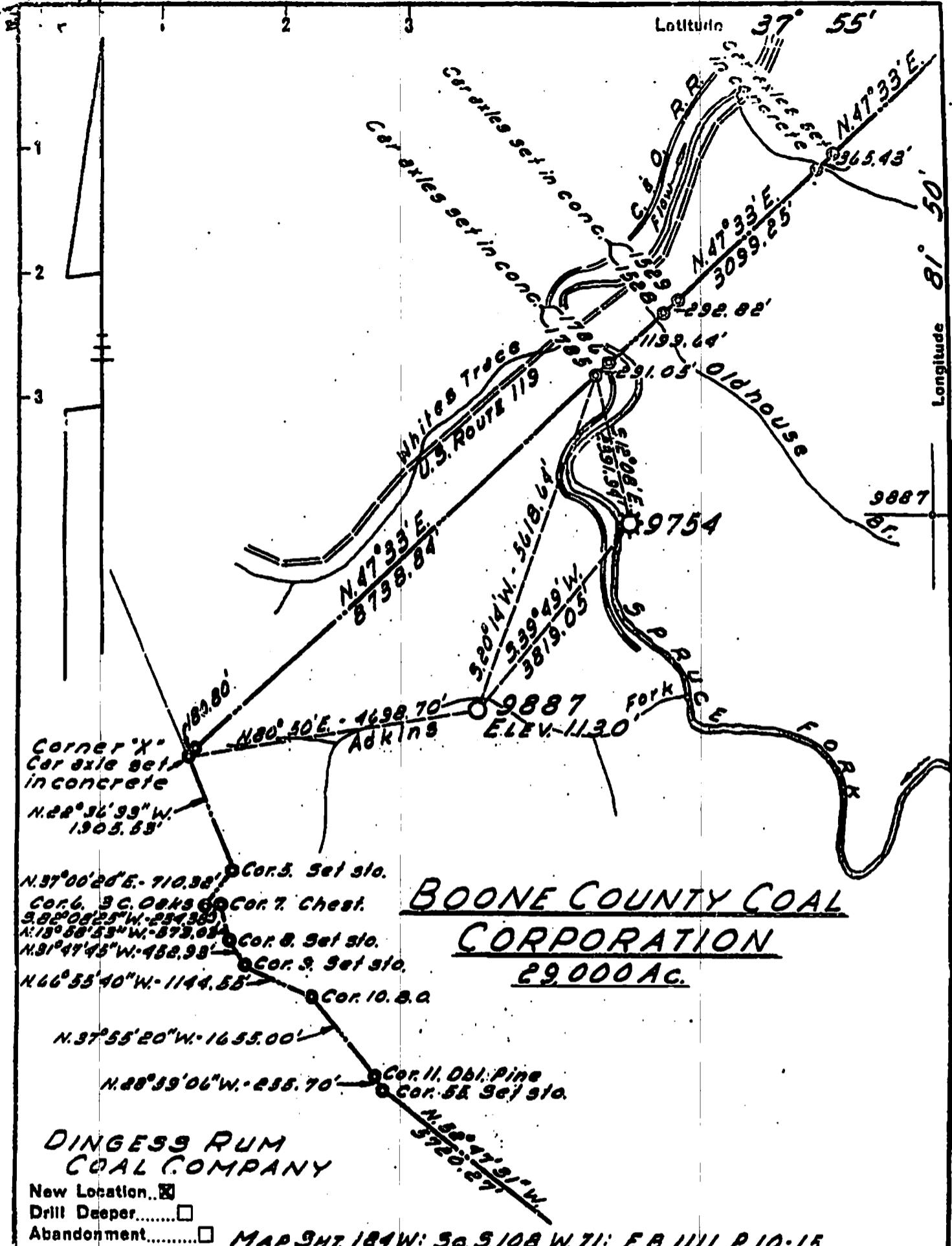
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Red Rock	2090	2113		
Slate	2113	2140		
MAXON	2140	2172		
Red Rock	2172	2217		
Slate	2217	2235		
Red Rock	2235	2267		
Slate & Shells	2267	2287		
LOWER MAXON	2287	2357		
LITTLE LIME	2357	2369		
Pencil cave	2369	2629	Gas	2567 - 96
BIG LIME	2629	2647		
Sand				

Total Depth 2647'

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**BOONE COUNTY COAL CORPORATION**  
29,000 AC.

**DINGESS RUM COAL COMPANY**

New Location...   
 Drill Deeper.....   
 Abandonment.....

MAP SH. 184 W. 50. S. 108 W. 71. F. B. 1111 P. 10-15

Company	<b>HOPENATURAL GAS CO.</b>
Address	<b>CLARKSBURG, WEST VA.</b>
Farm	<b>BOONE COUNTY COAL CORP.</b>
Tract	Acres <b>29000</b> Lease No. <b>60352</b>
Well (Farm) No.	Serial No. <b>9887</b>
Elevation (Spirit Level)	<b>1130'</b>
Quadrangle	<b>LOGAN</b>
County	<b>LOGAN</b> District <b>LOGAN</b>
Engineer	<b>Luy Bradley</b>
Engineer's Registration No.	<b>2025</b>
File No.	Drawing No.
Date <b>7-14-54</b>	Scale <b>1" = 2000'</b>

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**

FILE NO. **LOG-4187** 09/11/2015

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

WW-4A  
Revised 6-07

1) Date: August 24, 2015  
2) Operator's Well Number  
9877  
3) API Well No.: 47 - 045 - 00418

**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>Ark Land KH, Inc.</u> <b>WALIVER</b>	Name <u>United Affiliates</u> <b>WALIVER</b>
Address <u>City Place One, Suite 300</u>	Address <u>1005 Glenway Avenue</u>
<u>St. Louis, MO 63141</u>	<u>Bristol, Tennessee 24201</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Ralph Triplett</u>	(c) Coal Lessee with Declaration
Address <u>5539 McClellan Hwy</u>	Name _____
<u>Branchland, WV 25506</u>	Address _____
Telephone <u>(304) 389-0350</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.

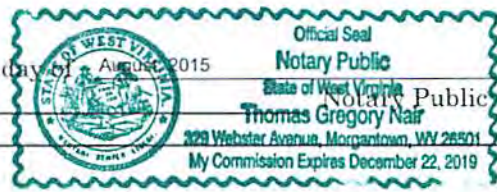
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

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 ICG Tygart Valley, LLC  
 By: Charles E. Duckworth  
 Its: Designated Agent  
 Address 2708 Cranberry Square  
Morgantown, West Virginia 26508  
 Telephone (304) 594-1616

*[Handwritten signature and date: 26 AUG 15]*

Subscribed and sworn before me this 24  
Thomas Gregory Nair  
My Commission Expires December 22, 2019



**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).

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WV Department of  
09/11/2015



**SURFACE OWNER WAIVER**

Operator's Well  
Number

9887

**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 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 **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 that I 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.

FOR EXECUTION BY A CORPORATION,

RECEIVED  
Office of Oil and Gas

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Name  
By  
Its

Ark Land KH, Inc.

David J. Finnerty  
President

\_\_\_\_\_  
Signature

SEP 11 2015  
8-27-15  
Date

WV Department of  
Environmental Protection

09/11/2015



WW-4B

API No.	<u>47-045-00418</u>
Farm Name	<u>Boone County Coal Corporation</u>
Well No.	<u>9887</u>

**INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

**WAIVER**

The undersigned coal operator \_\_\_\_ / owner X / lessee \_\_\_\_ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: August 26, 2015

United Affiliates Corporation

By: 

Its Sr. Vice President & General Counsel

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Environmental Protection **09/11/2015**

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name ICG Tygart Valley, LLC OP Code \_\_\_\_\_

Watershed Trace Branch of Spruce Fork of the Little Coal River Quadrangle Logan (442)

Elevation 1130 County Logan District Logan

Description of anticipated Pit Waste: N/A

Will a synthetic liner be used in the pit? N/A

Proposed Disposal Method For Treated Pit Wastes:

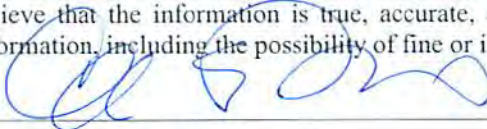
- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Tanks - See attached letter)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain \_\_\_\_\_)
- Swabbing
- Plugging

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.

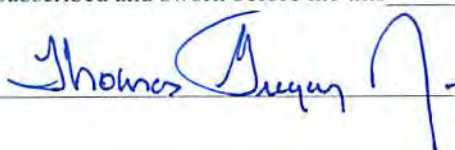
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is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

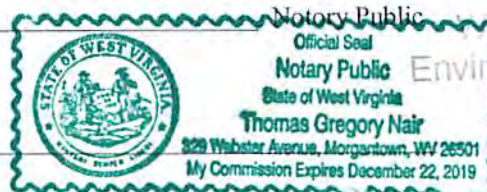
Company Official (Typed Name) Charles E. Duckworth

Company Official Title Designated Agent

Subscribed and sworn before me this 28 day of August, 2015



My commission expires December 22, 2019



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Department of Environmental Protection

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**LEGEND**

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- Buildings
- Water wells
- Drill site

- Diversion
- Spring
- Wet Spot
- Drain Pipe with size in inches
- Waterway
- Cross Drain
- Artificial Filter Strip
- Pit: cut walls
- Pit: compacted fill walls
- Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1.50/2.0 Prevegetation pH \_\_\_\_\_  
 Lime 3 Tons/acre or to correct to pH 6.5  
 Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)  
 Mulch Hay Bales Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre
Orchard Grass	12
Landino Clover	3
Timothy	10

Seed Type	Area II lbs/acre
Orchard Grass	12
Landino Clover	3
Timothy	10

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

Photocopied section of involved 7.5' topographic sheet.  
 See attached

Plan Approved by: *Asaph D. Triplett*

Comments: \_\_\_\_\_

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Title: *District Inspector*

Date: *September 3, 2015* SEP 08 2015

Field Reviewed?  Yes  No

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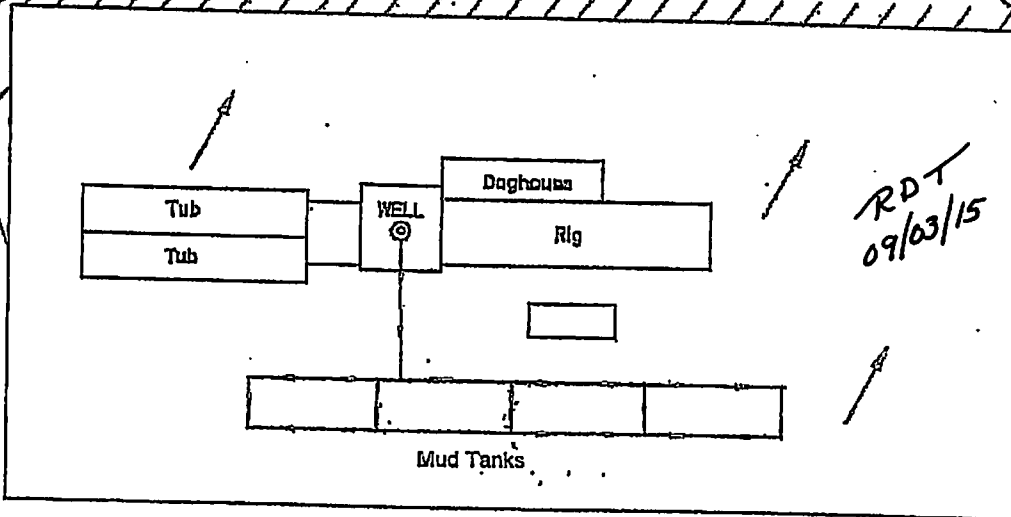
ICG TYGART VALLEY, LLC

Typical Drawing  
Of Well Plugging Site  
Plan

Diversion Ditch (as Needed)

CUT

Cut Mulched if Slope  
Less than 1 to 1



*RDT*  
*09/03/15*

Sediment  
Catch Basin

Sediment  
Catch Basin

Compacted and Layed

FILL

Original Ground Keywayed

Hay Bales  
or  
Sediment Fence

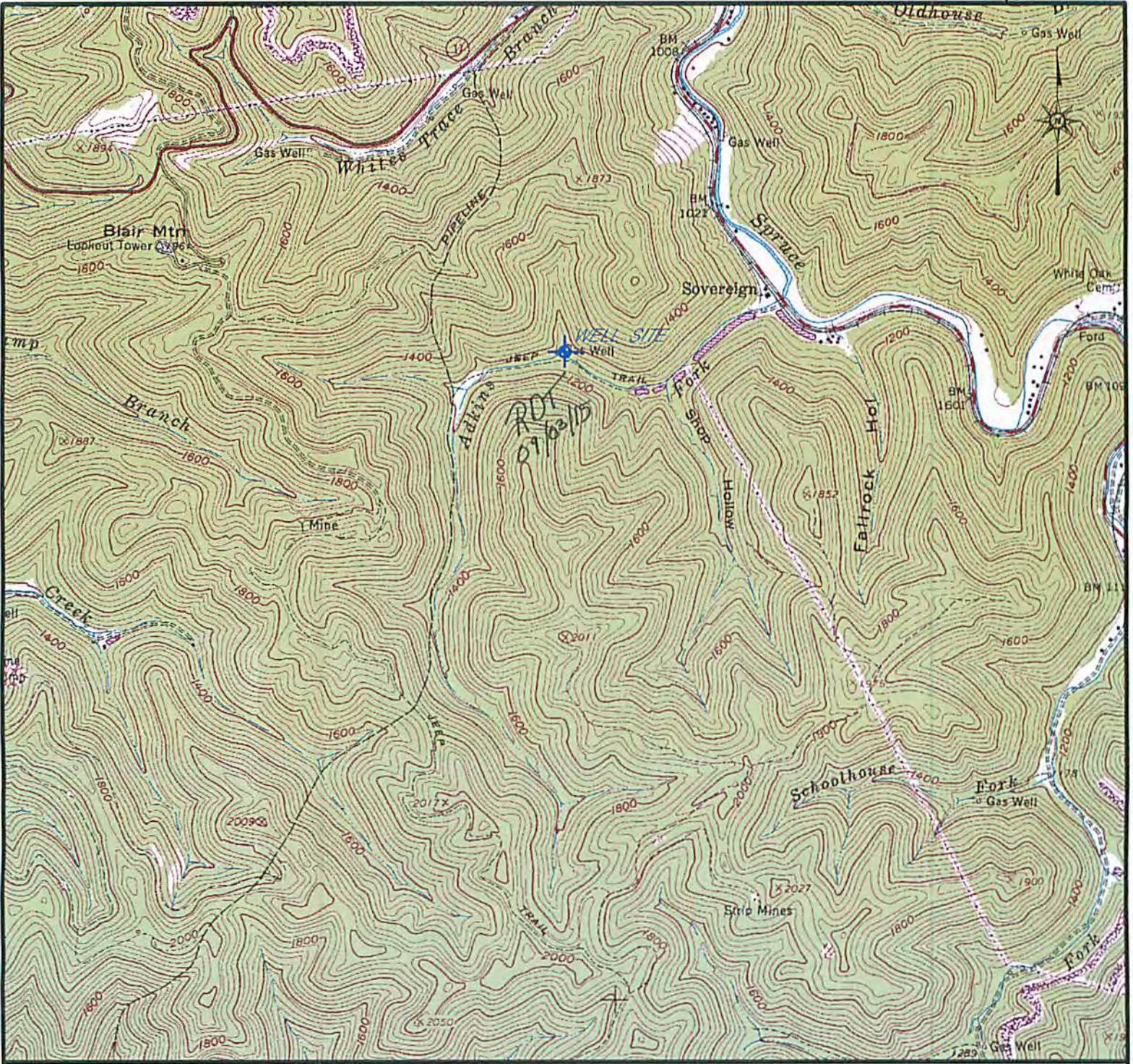
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PREPARED  
BY  
Oil and Gas

Environment  
Department of  
Protection

45-00418 P





LATITUDE: 37-51-31 N  
 LONGITUDE: 81-50-10 W  
 NEAREST WATERCOURSE: Trace Branch of Spruce Fork of the Little Coal River  
 NEAREST TOWN: \_\_\_\_\_

OPERATOR'S WELL NO. 9887  
 API WELL NO. No. 2  
47 - 045 - 00418  
 STATE COUNTY PERMIT

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS") PRODUCTION  STORAGE DEEP SHALLOW   
 LOCATION: ELEVATION 1130 WATERSHED Little Coal River  
 DISTRICT Logan COUNTY Logan  
 QUADRANGLE Amherstdale  
 SURFACE OWNER: United Affiliates ACREAGE \_\_\_\_\_  
 OIL & GAS ROYALTY OWNER: United Affiliates LEASE ACREAGE 29.000  
 LEASE NO. 60352  
 PROPOSED WORK: DRILL  CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR  
 STIMULATE \_\_\_\_\_ PLUG OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW  
 FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_  
 TARGET FORMATION \_\_\_\_\_ ESTIMATED DEPTH 2647'  
 WELL OPERATOR ICG Tygart Valley, LLC DESIGNATED AGENT Charles E. Duckworth  
 ADDRESS 2708 Cranberry Square, Morgantown, WV 26508 ADDRESS 1200 Tygart Drive, Grafton, WV 26508

REVISED BY	DATE	<b>API WELL NO. 47-045-00418 9887</b>	
		<b>ICG TYGART VALLEY, LLC</b>	
DRAWN BY <u>Jess J. Hill</u>		SCALE: 1" = 200'	
DIRECTORY <u>DWG 7157112 #1</u> <u>BY CIV &amp; GAS PERMIT MAPS</u>		DATE ORIGINATED JUNE 2013	
DRAWING NO. <u>47-045-00418</u> <u>-887-021</u>		PLOTTING <u>08/15/15</u>	



Appalachia - Northern Region  
 2708 Cranberry Square, Morgantown, WV 26508  
 Phone: 304-594-1616 Fax: 304-594-1700

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8-30-06

SEP 10 2015



WV Department of  
Environmental Protection

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

API: 47-045-00418 WELL NO.: 9887  
FARM NAME: BOONE COUNTY COAL CORP.  
RESPONSIBLE PARTY NAME: ICG TYGART VALLEY, LLC  
COUNTY: LOGAN DISTRICT: LOGAN  
QUADRANGLE: LOGAN  
SURFACE OWNER: UNITED AFFILIATES  
ROYALTY OWNER: UNITED AFFILIATES  
UTM GPS NORTHING: 4190471.11  
UTM GPS EASTING: 426474.63 GPS ELEVATION: 1128.62

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] Project Engineer 9-10-2015  
Signature Title Date

09/11/2015

**POWER OF ATTORNEY**  
**ICG TYGART VALLEY, LLC**  
**TO**  
**GREG NAIR**

**Dated: January 1, 2015**

**Expires: December 31, 2015**

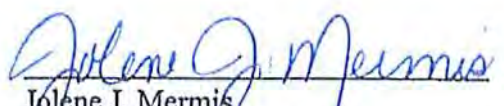
KNOW ALL MEN BY THESE PRESENTS: That ICG Tygart Valley, LLC, a limited liability company organized and existing under the laws of the State of Delaware (the "Company"), acting by and through James E. Florczak, its duly authorized Vice President and Treasurer, has and does hereby appoint Greg Nair its true and lawful Attorney-in-Fact with power and authority, for and on behalf, and in the name of the Company, during the period specified above, and subject to the restrictions and limitations set forth in this Power of Attorney to execute and deliver in the ordinary and regular course of the Company's business, applications for mining, environmental, safety and health permits, permit transfers, or permit bond releases or bond adjustments, amendments, supplements or modifications to such permits, certificates or other instruments directly related to such amendments, supplements or modifications, monthly production reports, air quality, water quality or other environmental reports, quarterly discharge monitoring reports and any other like or similar reports required to be filed with any local, state or federal governmental agency.

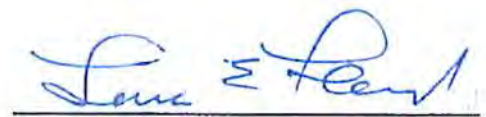
The Attorney herein appointed shall be authorized to act pursuant to this Power from the date hereof only so long as such Attorney shall remain an employee of Arch Coal, Inc. or any subsidiary thereof, or until December 31, 2015, or until such earlier time as this instrument has been revoked, annulled, rescinded or set aside by an instrument of revocation filed with the Secretary of the Company, whichever first occurs.

IN WITNESS WHEREOF, the Company has caused this Power of Attorney to be executed on its behalf, and its seal to be hereunto affixed and attested as of the day and year first above written, by the undersigned, James E. Florczak, duly authorized Vice President and Treasurer of the Company, and Jolene J. Mermis, duly elected Assistant Secretary of the Company.

Attest:

ICG TYGART VALLEY, LLC

  
Jolene J. Mermis  
Assistant Secretary of the Company

  
James E. Florczak  
Vice President and Treasurer

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