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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)

April 16, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-9100475, 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: 1555

Farm Name: BOYCE, E. W. - ESTATE

**API Well Number: 47-9100475**

**Permit Type: Plugging**

Date Issued: 04/16/2015

**Promoting a healthy environment.**

**04/17/2015**

## 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

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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.

9100475A

WW-4B  
Rev. 2/01

1) Date January, 20 15  
2) Operator's  
Well No. CNGD 1555  
3) API Well No. 47-91 - 00475

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 1303.79 Watershed Scab Run  
District Knottsville County Taylor Quadrangle Grafton (378)

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 9) Plugging Contractor  
Name Kenneth Greynolds Name Coastal Drilling East, LLC  
Address 613 Broad Run Road Address 130 Meadows Ridge Road  
Jane Lew, WV 26378 Mt. Morris, PA 15349

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

SEE PLUGGING PLAN

Received  
Office of Oil & Gas  
MAR 06 2015

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

Work order approved by inspector *Amesha Reynolds* Date 2-28-15

04/17/2015

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EXHIBIT NO. 1

101 C

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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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Office of Oil & Gas  
MAR 06 2015

04/17/2015

## EXHIBIT NO. 2

KCC 2-22-15

CLEANOUT/PLUGGING PLAN

- **Day 1** - Move to site, rig up, mix mud, drill rathole.
- **Day 2** - Finish drilling rathole, start picking up 2 3/8" drill pipe and cleanout well with a 3 3/4" bit to total depth (T.D.).
- **Day 3** - Continue to pick up 2 3/8" drill pipe and cleanout to T.D. Trip out of the hole (T.O.H) with 2 3/8" drill pipe.
- **Day 4** - Run cement bond log on 4 1/2" casing, (calculations reached from the cement information taken from the report indicate the estimated top of the cement on the outside of the 4 1/2" is 3,191'), ~~perforate/cut 4 1/2" casing every 100' from 5,137' to 3,291'. Total shots needed 120.~~ **Do NOT PERFORATE 4 1/2".**
- **Day 5** - Trip in hole (T.I.H) with 2 3/8" drill pipe to T.D. Cement hole from 5,239' back to 3,191' with 160 sacks of Class A Cement with a gas blocker additive. Circulate hole, condition mud, T.O.H.
- **Day 6** - T.I.H with 3 3/4" bit to tag top of cement plug. T.O.H, T.I.H with 4 1/2" pressure pipe cutter, cut 4 1/2" casing just above top of bonded casing at 3,185'. Lay down 2 3/8" drill pipe.
- **Day 7** - Continue to lay down 2 3/8" drill pipe. Rig up 4 1/2" casing spear. Hook to 4 1/2" casing at the surface, release slips from wellhead and attempt work 4 1/2" casing free to 3,185'. Lay down 4 1/2" casing.
- **Day 8** - Rig up 7 7/8" bit. Pick up drill collars and drill pipe, start cleaning hole to top of remaining 4 1/2" casing at 3,185'.
- **Day 9** - Continue to clean hole with 7 7/8" bit to top of remaining 4 1/2" casing at 3,185'. Circulate hole. T.O.H with 7 7/8" bit. T.I.H with open ended 3 1/2" drill pipe.
- **Day 10** - Cement hole from 3,191' to within 50' of bottom of 8 5/8" casing at 1,031' with 1,000 gallons of mud flush and 500 sacks of Class A cement with 4% gel. Circulate hole and condition mud. T.O.H Log hole (Caliper, Natural Gamma, Directional and Bond logs). Calculations reached from the cement information taken from the report indicates that the 8 5/8" casing was cemented to surface.
- **Day 11** - T.I.H with 8 5/8" pressure pipe cutter. Cut 8 5/8" casing every 100' from 891' to 381' (6 cuts total). T.O.H with 8 5/8" cutter. T.I.H with 8 5/8" section mill. Section mill 30' window in 8 5/8" casing through coal seam. **Received Office of Oil & Gas**
- **Day 12** - Continue to section mill 8 5/8" casing through coal seam. **MAR 06 2015**
- **Day 13** - Finish section milling 8 5/8" casing. T.O.H with 8 5/8" section mill. T.I.H with 7 7/8" bit.
- **Day 14** - Clean hole with 7 7/8" bit to top of cement plug at 1,031'. Circulate hole at 1,031'. T.O.H with 7 7/8" bit. Run caliper log to verify window and cuts in 8 5/8" casing. Lay down drill collars and fishing tools. Prepare to cement hole to surface. **04/17/2015**

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EXHIBIT NO. 2

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**CLEANOUT/PLUGGING PLAN**

- **Day 15** – Cement hole from 1,031' to surface using 180 sacks of Class A cement with 4% gel and 120 sacks of Thixotropic cement with green dye. Clean out mud tank. Rig down equipment and prepare to move rig to next site.

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**Office of Oil & Gas**  
**MAR 06 2015**

04/17/2015



IV-35  
(Rev 8-81)

**RECEIVED**  
JUL 10 1985

**OIL & GAS DIV.  
DEPT. OF MINES**

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date May 17, 1985  
Operator's Well No. CNGD WN 1555  
Farm Boyce Unit  
API No. 47 - 091 - 0475

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil    / Gas X / Liquid Injection    / Waste Disposal    /  
(If "Gas," Production X / Underground Storage    / Deep    / Shallow X /)

LOCATION: Elevation: 1301.79 Watershed Scab Run  
District: Knottsville County Taylor Quadrangle Grafton WV 7.5(1960)

COMPANY CNG Development Company  
ADDRESS P. O. Box 15746  
Pittsburgh, PA 15244  
DESIGNATED AGENT Gary A. Nicholas  
ADDRESS Rt. 2 Box 698  
Bridgeport, WV 26310  
SURFACE OWNER E. W. Boyce Estate  
ADDRESS c/o Albert Boyce  
Rt. 1, Grafton, WV 26354  
MINERAL RIGHTS OWNER E. W. Boyce Estate  
ADDRESS c/o Albert Boyce  
Rt. 1, Grafton, WV 26354  
OIL AND GAS INSPECTOR FOR THIS WORK  
Donald Ellis ADDRESS 2604 Crab Apple Lane  
Fairmont, WV 26534

PERMIT ISSUED 3-21-85  
DRILLING COMMENCED 4-29-85  
DRILLING COMPLETED 5-5-85

IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	857	857	To Surf.
7			
5 1/2			
4 1/2	5188	5188	450 sks
3			
2 1/2	4981	4981	-----
Liners used			

GEOLOGICAL TARGET FORMATION Haverty Depth 5500 feet  
Depth of completed well 5500 feet Rotary X / Cable Tools     
Water strata depth: Fresh 60 feet; Salt    feet  
Coal seam depths: 180-181 310  
280-282 850 Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Ash Elk Pay zone depth 4998 - 5092 feet  
Benison 3062 - 3072  
RTAY  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Bbl/d  
Final open flow 215 Mcf/d Oil: Final open flow    Bbl/d  
Time of open flow between initial and final tests    hours  
Static rock pressure 200 psig (surface measurement) after 1 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation    Pay zone depth    feet  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Bbl/d  
Final open flow    Mcf/d Oil: Final open flow    Bbl/d  
Time of open flow between initial and final tests    hours  
Static rock pressure    psig (surface measurement) after    hours shut in

TAY  
0475

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MAR 06 2015

FORM IV-35  
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Superior Ran Corrlog & Perforated 4th Elk 4998-5002 (10 holes) .39 HSC  
Halliburton Water Frac 20# Gel 4th Elk - Break 2560, Avg TPSI 3500, Avg Rate 17 BPM,  
HHP used 1487. Screened off @ 4000# Total Sand 12,000# 20/40 & 500 gals MOD 202

Superior Perf. Benson Sand 4124-4129 (10 holes) .39 HSC  
Halliburton Water Frac 20# Gel Benson Sand - Break 2600, Avg TPSI 3600, Avg Rate 23 BPM,  
HHP used 2003, ISI 3800, Screened off, Total Sand 19,000# 20/40 & 500 gals 15% HCL

Superior Perforated Riley Sand 3902-3914 (12 holes) .39 HSC  
Halliburton Water Frac 20# Gel - Break 2300, Avg TPSI 2750, Avg Rate 31 BPM,  
HHP used 2089, ISI 1700, 5 min 1550, Ran 60,000# 20/40 Sand & 500 gals 15% HL

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
KB - GL			0	10	1/2" stream Water @ 60'
Soil & Shale & RR			10	180	1/2" stream Water @ 130'
Coal			180	181	1/2" stream Water @ 310'
Sand & Shale			181	280	1" stream Water @ 560'
Coal			280	282	1/2" stream Water @ 820'
Sand, Shale & RR			282	1190	
Lime & Injun			1190	1390	
Sand & Shale & RR			1390	4175	Coal;
Benson			4175	4190	180 - 181
Sand & Shale			4190	4385	280 - 282
1st Elk			4385	4460	
Sand & Shale			4460	4525	
2nd Elk			4525	4735	
Sand & Shale			4735	4770	
3rd Elk			4770	4790	
Sand & Shale			4790	5010	
4th Elk			5010	5090	
Sand & Shale			5090	5190	
Haverty			5190	5220	
Sand & Shale			5220	5502	
<b>LOG TOPS</b>					
B. Lime/B. Injun			1176	1370	
Pocono			1464	1904	
50'			1704	1816	
5th/L. 5th			2193	2308	
Balltown			2982	3138	
Riley			3776	3945	
Benson			4116	4130	
1st Elk			4320	4390	
2nd Elk			4470	4678	
3rd Elk			4693	4872	
4th Elk			4980	5076	
Haverty			5108	5210	

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By: *Say A. White*

Date: May 17, 1985

Received  
Office of Oil & Gas

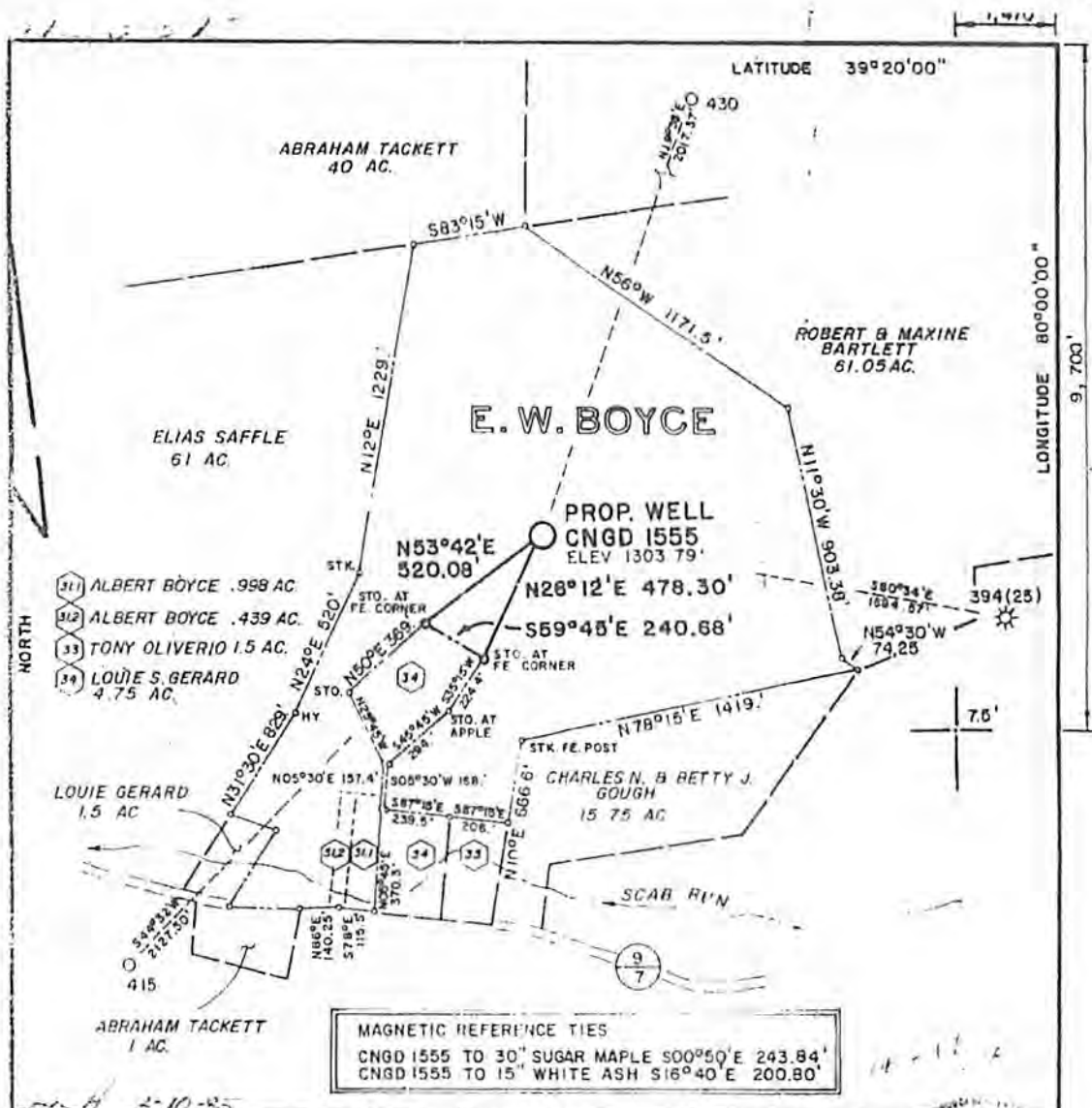
MAR 06 2015

Note: Regulation 3.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including ... encountered in the drilling of a well."

04/17/2015



9100475P



MAGNETIC REFERENCE TIES  
 CNGD 1555 TO 30" SUGAR MAPLE S00°50'E 243.84'  
 CNGD 1555 TO 15" WHITE ASH S16°40'E 200.80'

FILE NO. MSES 85-594  
 DRAWN BY SARC  
 SCALE 1" = 500'  
 ACCURACY 1 PART IN 200  
 PROVEN SOURCE OF ELEVATION NO INT. CO. RTS. 9/7 & 9/8; ELEV. 1309'

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 DEPARTMENT OF MINES.  
 (SIGNED) John D. Bailey  
 R.P.E. L.L.S. 6521



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



Department of Mines  
 Oil & Gas Division

DATE JANUARY 7 19 84  
 OPERATOR'S WELL NO. CNGD 1555  
 API WELL NO. 47-091-0475  
 STATE WEST VIRGINIA COUNTY TAYLOR PERMIT 71.25

WELL TYPE: OIL    GAS X LIQUID INJECTION    WASTE DISPOSAL     
 (IF "GAS", PRODUCTION X STORAGE    DEEP    SHALLOW X)  
 LOCATION: ELEVATION 1303.79' WATER SHED SCAB RUN  
 DISTRICT KNOTTSTOWN COUNTY TAYLOR  
 QUADRANGLE GRAFTON, WV 7.5' 1960 (1976)  
 SURFACE OWNER E.W. BOYCE ESTATE ACREAGE 70.33 ±  
 IL & GAS ROYALTY OWNER E.W. BOYCE ESTATE LEASE ACREAGE 71.25 ±  
 LEASE NO. 75081  
 PROPOSED WORK: DRILL X 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 HAVERTY ESTIMATED DEPTH 5500'  
 WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS  
 ADDRESS ONE PARK RIDGE CENTER ADDRESS RT 2, BOX 698  
PITTSBURGH, PA 15244 BRIDGEPORT, WV 26330

TAYLOR 0475

Received  
 Office of Oil &  
 MAR 06 2015

04/17/2015

NO 2-26-15

WW-4A  
Revised 6-07

1) Date: January 19, 2015  
2) Operator's Well Number  
CNGD 1555  
3) API Well No.: 47 - 91 - 00475

**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>E.W. Boyce Estate</u>	Name <u>CoalQuest Development, LLC</u>
Address <u>c/o Albert Boyce</u>	Address <u>2708 Cranberry Square</u>
<u>Route 1, Grafton, West Virginia 26354</u>	<u>Morgantown, West Virginia 26508</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Kenneth Greynolds</u>	(c) Coal Lessee with Declaration
Address <u>613 Broad Run Road</u>	Name _____
<u>Jane Lew, WV 26378</u>	Address _____
Telephone <u>(304) 206-6613</u>	

**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

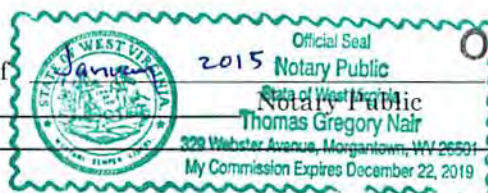
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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

Subscribed and sworn before me this 27 day of January  
Thomas Gregory Nair  
My Commission Expires December 22, 2019



Received  
Office of Oil & Gas  
MAR 06 2015

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).

**POWER OF ATTORNEY**  
**COALQUEST DEVELOPMENT LLC**  
**TO**  
**GREG NAIR**

**Dated: January 1, 2015**  
**Expires: December 31, 2015**

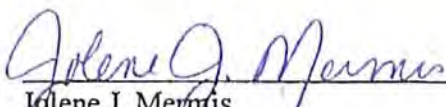
**KNOW ALL MEN BY THESE PRESENTS:** That CoalQuest Development LLC ("Company"), a limited liability company organized and existing under the laws of the State of Delaware, acting by and through James E. Florczak, its duly authorized Vice President and Treasurer, has and does hereby appoint Greg Nair 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 herein specified, and subject to the restrictions and limitations set forth in this Power, to execute, acknowledge 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, gas well plugging applications, shallow well drilling permit applications, 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.

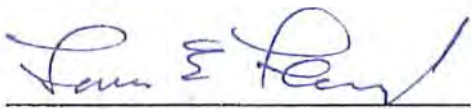
The Attorney herein appointed shall be authorized to act pursuant to this Power from the date hereof only so long as such Attorney shall remain an employee of Arch Coal, Inc. or any subsidiary thereof, or until December 31, 2015, or until such earlier time as this instrument has been revoked, annulled, 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:

COALQUEST DEVELOPMENT LLC

  
\_\_\_\_\_  
Jolene J. Mermis  
Assistant Secretary of the Company

  
\_\_\_\_\_  
James E. Florczak  
Vice President and Treasurer

Received  
Office of Oil & Gas  
MAR 06 2015

WW-4B

API No.	<u>47-91-00475</u>
Farm Name	<u>E.W. Boyce Estate</u>
Well No.	<u>CNGD 1555</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.

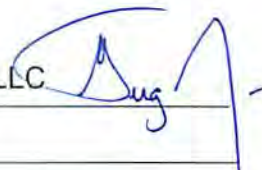
This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, 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 X / owner \_\_\_\_\_ / 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: 1/27/15

CoalQuest Development, LLC   
 By: Greg Nair  
 Its Power of Attorney

**Received**  
**Office of Oil & Gas**  
 MAR 06 2015

**SURFACE OWNER WAIVER**

Operator's Well  
Number

CNGD 1555

47-021-00475

**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 & Gas**

Deane Bager  
Signature

Date 2-23-15

Name  
By  
Its

MAR 06 2015

Date

Signature

Date

**04/17/2015**

420

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

**Dated: January 1, 2015**

**Expires: December 31, 2015**

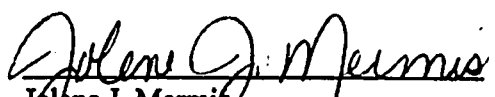
KNOW ALL MEN BY THESE PRESENTS: That ICG Tygart Valley, LLC, a limited liability company organized and existing under the laws of the State of Delaware (the "Company"), acting by and through James E. Florczak, its duly authorized Vice President and Treasurer, has and does hereby appoint Greg Nair its 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.

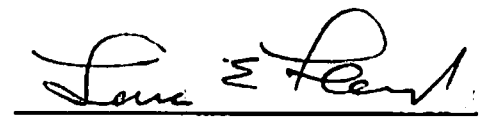
The Attorney herein appointed shall be authorized to act pursuant to this Power from the date hereof only so long as such Attorney shall remain an employee of Arch Coal, Inc. or any subsidiary thereof, or until December 31, 2015, or until such earlier time as this instrument has been revoked, annulled, 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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Office of Oil & Gas  
MAR 06 2015

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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 Scab Run Quadrangle Grafton (378)

Elevation 1303.79 County Taylor District Knottsville

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:

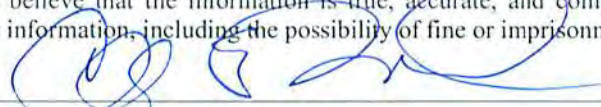
- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Tanks - See attached letter)

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 27 day of January, 2015

 Notary Public

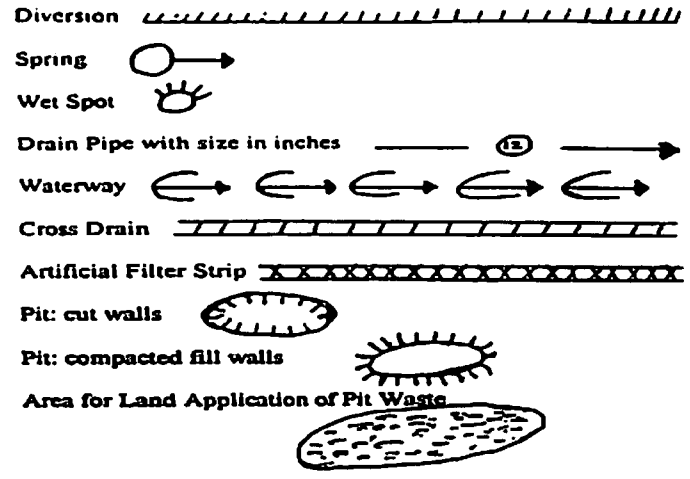
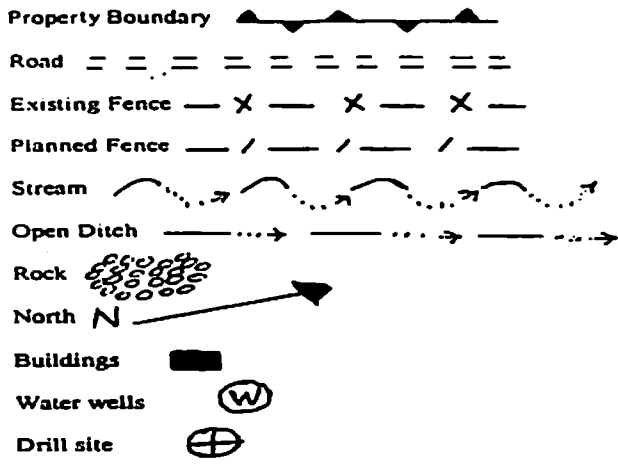
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My commission expires \_\_\_\_\_



04/17/2015

**LEGEND**



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: *Ernest Reynolds*

Comments: RESTO + MULCH 15AP

Title: OIL + GAS INSPECTION

Date: 2-26-15

Field Reviewed? ( ) Yes (  ) No

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**Office of Oil & Gas**  
MAR 06 2015

04/17/2015



9100475P



# ICG TYGART VALLEY, LLC

2708 Cranberry Square, Morgantown, West Virginia 26508

January 19, 2015

WV Department of Environmental Protection  
Office of Oil and Gas  
601 – 57<sup>th</sup> Street, S.E.  
Charleston, West Virginia 25304

To Whom It May Concern:

As per the WV Department of Environmental Protection, Office of Oil and Gas request, ICG Tygart Valley, LLC, submits the following procedures utilizing pit waste.

Upon submitting a well work application (without a general permit for Oil and Gas Pit Waste Discharge Application), ICG Tygart Valley, LLC, will construct no pits, but instead will use mud tanks to contain all drilling muds.

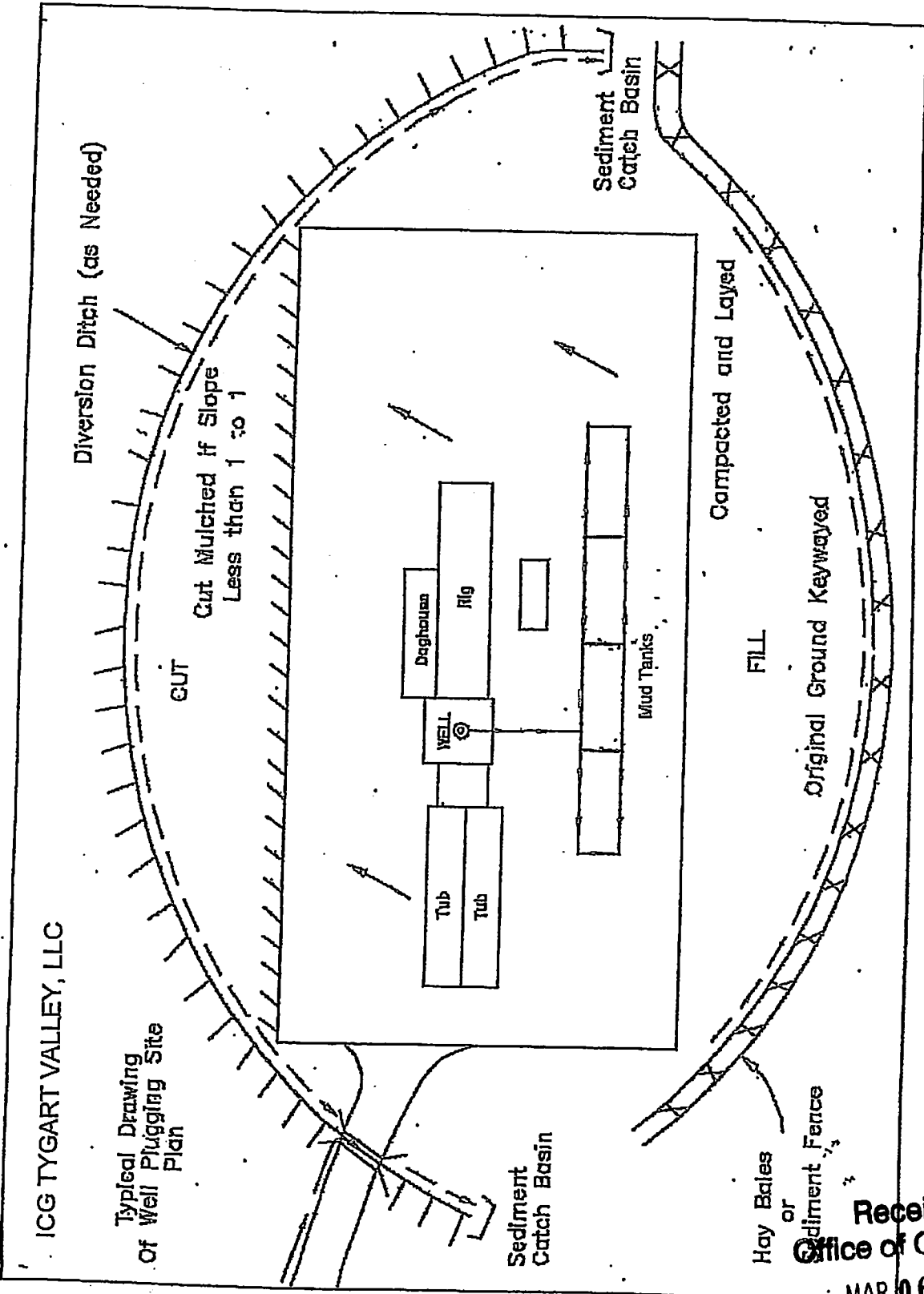
Once the well is completed, that material (minus the cave material) will be trucked to the next well to be plugged or to DEP impoundment facilities O-2017-06.

Sincerely,

Charles E. Duckworth  
Designated Agent

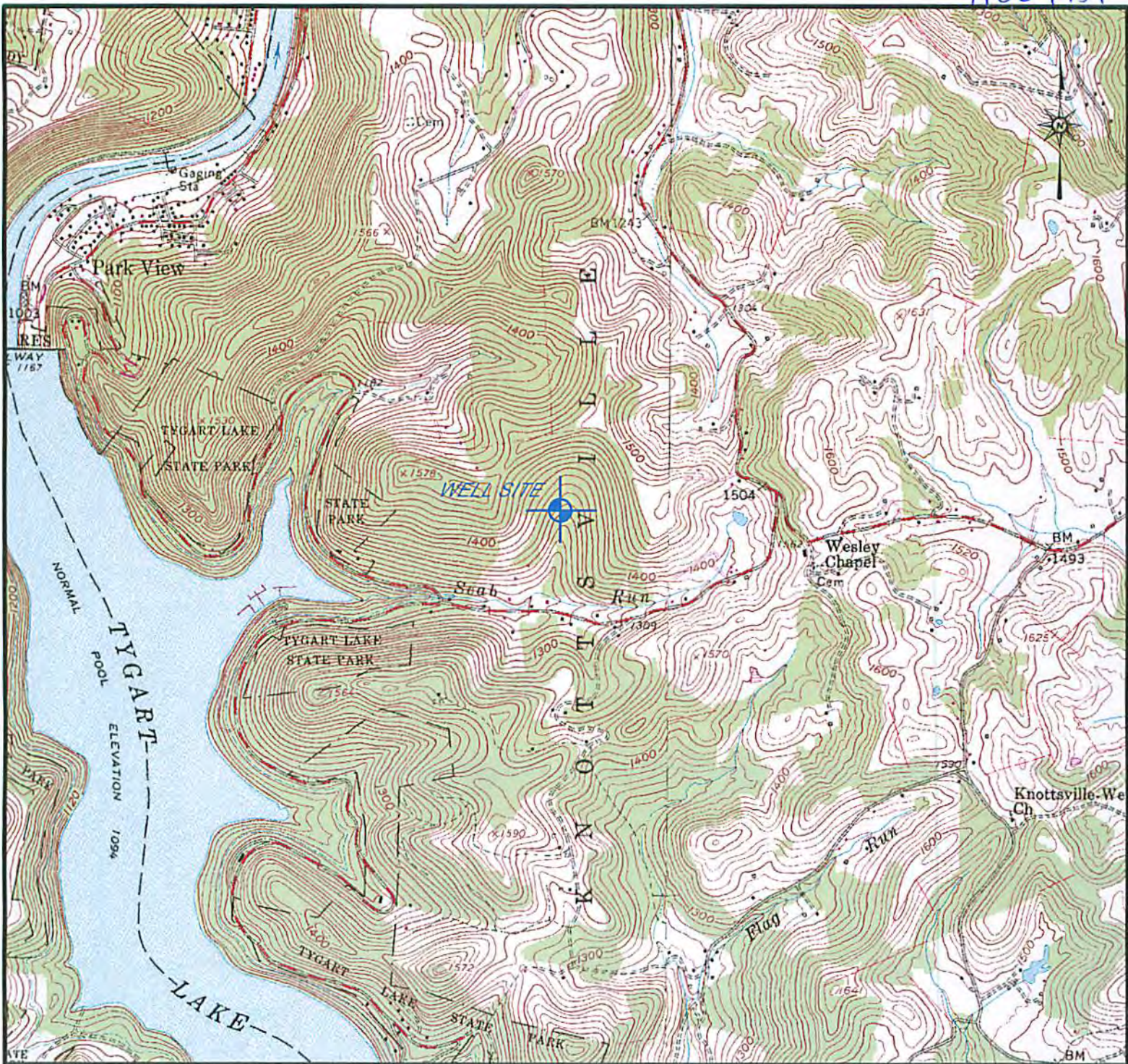
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LATITUDE: 39° 18' 24"  
 LONGITUDE: 80° 00' 20"  
 NEAREST WATERCOURSE: \_\_\_\_\_  
 NEAREST TOWN: \_\_\_\_\_

OPERATOR'S WELL NO. CNGD 1555  
 API WELL NO. \_\_\_\_\_  
47 - 091 - 0475  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_\_\_ GAS X LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF \*GAS\*) PRODUCTION X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1303 WATERSHED Scab Run COUNTY Taylor  
 DISTRICT Knottsville QUADRANGLE Thornton 7 1/2'  
 SURFACE OWNER: E. W. Boyce Estate ACREAGE 70.33  
 OIL & GAS ROYALTY OWNER: E. W. Boyce Estate LEASE ACREAGE 71.25  
 LEASE NO. 75081  
 PROPOSED WORK: DRILL X 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 Haverly ESTIMATED DEPTH 5700'  
 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

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*11c 2-26-15*

REVISED BY:	DATE:	<b>API WELL NO. 47-091-0475 CNGD 1555</b>	
		<b>ICG TYGART VALLEY, LLC</b>	
DRAWN BY: <u>Tom J. Hill</u>		SCALE: 1" = 2000'	
DIRECTORY: <u>DIGGING #1</u> <u>WV OIL &amp; GAS PERMIT MAPS</u>		DATE ORIGINATED: JANUARY, 2015	
DRAWING NO.: <u>47-091-0475.dgn</u>		PLOTTING: <u>SCATZ</u>	



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

04/17/2015

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WW-7  
8-30-06



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

API: 47-091-0475 WELL NO.: CNGD 1555

FARM NAME: E.W. Boyce Estate

RESPONSIBLE PARTY NAME: ICG Tygart Valley, LLC

COUNTY: Taylor DISTRICT: Knottsville

QUADRANGLE: Grafton

SURFACE OWNER: E.W. Boyce Estate

ROYALTY OWNER: E.W. Boyce Estate

UTM GPS NORTHING: 4351279.538

UTM GPS EASTING: 585754.649 GPS ELEVATION: ~~1295.82~~ 1303.79

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:

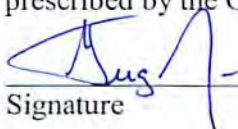
Survey grade GPS  : Post Processed Differential \_\_\_\_\_  
Real-Time Differential

Mapping Grade GPS \_\_\_\_\_ : Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

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- 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

Power of Attorney

Title

1/27/15  
Date

04/17/2015

Return

4709100475  
[http://www.senecaenergy.com/Archived-310001/W-Asst.html-310000]  
senecap\_baeg1

Owner Completion

API 4709100475 I New Locat 5 5 1985 Completed E W Boyce CNGD-1555 CNG Development Co. 29 4 1985 1314 K 344 K

Location

API 4709100475 Taylor 475 Krasaville Fairmont SE 39 20 1.54 80 0 0.27 378 39 20 1 80 0 0  
SECTION LAT\_DEG LAT\_MIN MILES\_S\_LONG DEG LONG\_MIN MILES\_S\_QUAD S\_LAT\_DEG S\_LONG\_DEG S\_LONG\_MIN S

Completion Stage is Empty

str\_baeg14

Stratigraphy

API	SUFFIX	FM_Q	DEPTH_Q	DEPTH_Q	THICKNESS_Q	FEET	THICKNESS_Q	ELEV_Q	DATUM	TYPE_OF_DATUM	TYPE_OF_DATUM	STRAT_LONG	STRAT_RANK	STRAT_OCCUR	STRAT_SET	NAME	STRAT_C
4709100475 O		180	1	1314	K	unidentified coal	0									MCC & up	01
4709100475 O		280	2	1314	K	unidentified coal	0									MCC & up	01
4709100475 O		1176	194	1314	K	Greensboro Group	5									GRBZ/NIN	03
4709100475 O		1464	140	1314	K	Precato Group	7									POCN	04
4709100475 O		1704	112	1314	K	Fifty-foot	10									CSKL	06
4709100475 O		2193	0	1314	K	Fifth	13									CMNG	06
4709100475 O		2982	156	1314	K	Balltown	16									CMNG	09
4709100475 O		3776	169	1314	K	Ruby	17									CMNG	09
4709100475 O		4116	14	1314	K	Berwin	18									CMNG	09
4709100475 O		4320	70	1314	K	Elk	20									CMNG	09
4709100475 O		4470	208	1314	K	Elk	20									CMNG	09
4709100475 O		4693	179	1314	K	Elk	20									CMNG	09
4709100475 O		4980	96	1314	K	Elk	20									CMNG	09
4709100475 O		5108	102	1314	K	Haveny	20									CMNG	09

Pay

API	EPISODE	ACTIVITY	PRODUCT	TOP	PFT	BOTTOM	PFB	BEFORE	AFTER	OIL	AFTER	WTR	QTY
4709100475 I		W	F	60	0	0	0	0	0	0	0	0	0
4709100475 I		P	F	3902	3914	434	0	0	0	0	0	0	0
4709100475 I		W	F	560	0	0	0	0	0	0	0	0	0
4709100475 I		W	F	310	0	0	0	0	0	0	0	0	0
4709100475 I		W	F	130	0	0	0	0	0	0	0	0	0
4709100475 I		P	F	4124	4129	435	0	0	0	0	0	0	0
4709100475 I		P	F	4998	5002	436	0	0	0	0	0	0	0
4709100475 I		W	F	820	820	0	0	0	0	0	0	0	0

1/29/2015

http://consol.senecaenergy.com/wellinfo/well\_report.asp?newWhere=4709100475

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