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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

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

Friday, September 09, 2016  
WELL WORK PERMIT  
Vertical / Plugging - 2

ICG TYGART VALLEY, LLC  
100 TYGART DR

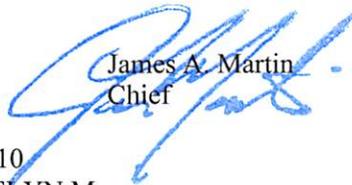
GRAFTON, WV 26354

Re: Permit approval for BJ-610  
47-091-00438-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.



James A. Martin  
Chief

Operator's Well Number: BJ-610  
Farm Name: McVICKER, EVELYN M.  
U.S. WELL NUMBER: 47-091-00438-00-00  
Vertical / Plugging - 2  
Date Issued: 9/9/2016

Promoting a healthy environment.

## 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.

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WW-4B  
Rev. 2/01

1) Date June 27, 2016  
2) Operator's  
Well No. BJ-610  
3) API Well No. 47-91 - 00438

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 1445 Watershed Flag Run  
District Knottsville County Taylor Quadrangle Thornton (638)

6) Well Operator ICG Tygart Valley, LLC 7) Designated Agent Charles E. Duckworth  
Address 100 Tygart Drive Address 100 Tygart Drive  
Grafton, WV 26354 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 Exhibit Nos. 1 and 2

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

Work order approved by inspector *Kenneth Greynolds*

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JUL 12 2016  
Date 7-8-16  
WV Department of  
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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".

ICG TYGART VALLEY, LLC  
LEGA MINE (MSHA ID # 46-09192)  
MSHA 101-C DOCKET # M-2012-005C

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EXHIBIT No. 2

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"

05/26/2016

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

Mr. Duckworth,

Below is the proposed plugging plan we discussed that can be used on wells similar to the wells we have been plugging for the last few years.

Plugging Plan

- Move to site, rig up, mix mud, drill rathole
- Attempt to clean out well to original total depth (TD). PBD ≈ 5480'
- Run cement bond log on 4 ½" casing to determine top of cement
- Set bottom hole cement plug as required by the WV DEP from TD to top of cement determined by the bond log.
- Tag top of bottom hole plug to insure plug is at correct depth. Re-cement if necessary.
- Cut and pull 4 ½" casing from the free point determined by the bond log.
- Clean out wellbore to top of remaining 4 ½" casing
- Run suite of logs to determine casing size, bottom of casing, depth of coal seams, deviation of wellbore and cement bond to casing.
- Cement hole from top of bottom hole plug to a depth within 25' of the bottom of the 8 5/8" casing.
- If necessary cut and pull any free casing.
- Perforate, cut, rip or mill any remaining casing at depths determined by MSHA's 101C Petition.

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- Cement hole from top of intermediate plug to surface using cement required by MSHA's 101C Petition.
- Rig down and set monument as required by WV DEP.

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COASTAL  
DRILLING - EAST



-81)

# State of West Virginia

Department of Mines  
Oil and Gas Division

Date May 3, 1985  
Operator's BJ-610  
Well No. BJ-610  
Farm McVicker  
API No. 47 - 091 - 0438

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

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

LOCATION: Elevation: 1445 Watershed Flag Run  
District: Knottsville County Taylor Quadrangle Thornton 7.5

COMPANY J&J Enterprises, Inc.  
ADDRESS P.O. Box 48, Buckhannon, WV 26201  
DESIGNATED AGENT Richard Reddecliff  
ADDRESS P.O. Box 48, Buckhannon, WV 26201  
SURFACE OWNER Evelyn M. McVicker  
ADDRESS Rt. # 1, Box 221, Philippi, WV 26416  
GENERAL RIGHTS OWNER Same as surface  
ADDRESS     
LAND AND GAS INSPECTOR FOR THIS WORK Donald Ellis  
ADDRESS 2604 Crab Apple Lane  
Fairmont, WV 26554  
PERMIT ISSUED -10/12/84  
DRILLING COMMENCED 1/7/85  
DRILLING COMPLETED 1/17/85  
IF APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
WORKING. VERBAL PERMISSION OBTAINED  
  

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	30	0	0 sks.
9 5/8			
8 5/8	1107.70	1107.70	270 sks.
7			
5 1/2			
4 1/2	5515	5515	350 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Haverty Depth 5360-84 feet  
Depth of completed well 5712 feet Rotary x / Cable Tools     
Water strata depth: Fresh 50 feet; Salt 0 feet  
Coal seam depths: 365-70, 800-803 Is coal being mined in the area? No

### OPEN FLOW DATA

Producing formation Haverty Pay zone depth 5360-84 feet  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Ebl/d  
Combined Final open flow 2,000 Mcf/d Final open flow    Ebl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 1400 psig (surface measurement) after    hours shut in  
(If applicable due to multiple completion--)  
Second producing formation 4th Elk, Benson & Riley pay zone depth 5113-20 feet  
Gas: Initial open flow    Mcf/d Oil: Initial open flow    Ebl/d  
Final open flow    Mcf/d Oil: Final open flow    Ebl/d  
Time of open flow between initial and final tests    hours  
Static rock pressure    psig (surface measurement) after    hours shut in

(Continue on reverse side)

(REVERSE)

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

Haverty: Perforations: 5360-84 (12 holes)  
4th Elk: Perforations: 5113-20 (14 holes)  
Benson: Perforations: 4301-03 (8 holes)  
Riley: Perforations: 4066-82 (14 holes)

FOAM FRAC

BOTTOM HOLE PRESSURE  $P_f = P_{we} \times GLS$

$$60 + (5515 \times 0.0075) + 459.7 = 561 \times \frac{1}{53.34} T = \frac{1}{53.34} (561) = 29923 = 0.0000334 \quad P_f = (1400) (2.72)$$

$$0.0000334 (0.670) (4725) (0.9) \quad P_f = (1400) (2.72) (0.095) = (1400) (1.1)$$

$\bar{z} = 1540$  psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all and salt water, coal, oil a
Fill			0	10	
Sand			10	365	
Coal			365	370	1/2" stream @ 50'
Sand			370	525	
Sand & shale			525	680	Gas ck @ 2140 No show
White sand			680	800	
Coal			800	803	Gas ck @ 3310 No show
Sand & shale			803	975	
Red rock			975	1340	Gas ck @ 3800 No show
Big Lime & Injun			1340	2120	
Sand & shale			2120	3366	Gas ck @ 4700 No show
Sand & shale			3266	4066	
Riley			4066	4082	
Sand & shale			4082	4301	
Benson			4301	4303	
Sand & shale			4303	5113	
4th Elk			5113	5120	
Sand & shale			5120	5360	
Haverty			5360	5384	
Sand & shale			5384	5712	
				T.D.	
				Brallier@	T.D.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.  
Well Operator

RECEIVED  
Office of Oil and Gas

By:

Date: 5/3/85

Daniel F. Stark  
Geologist

JUL 12 2016  
WV Department of  
Environmental Protection

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic  
... of all formations including ..."

91 00438P

WW-4A  
Revised 6-07

1) Date: June 27, 2016  
2) Operator's Well Number BJ-610

3) API Well No.: 47 - 91 - 00438

**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>Charles A. Smith</u> ✓	Name <u>CoalQuest Development, LLC</u> <i>Waiver</i>
Address <u>94 Dogwood Trails</u>	Address <u>100 Tygart Drive</u>
<u>Napier, West Virginia 26631</u>	<u>Grafton, West Virginia 26354</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:

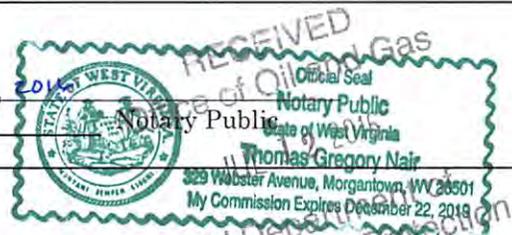
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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 *[Signature]*  
 Its: Designated Agent  
 Address 100 Tygart Drive  
Grafton, West Virginia 26354  
 Telephone (304) 265-9704

Subscribed and sworn before me this 27 day of June, 2016  
*[Signature]*  
 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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WW-4B

API No. 47-91-00438  
Farm Name McVicker  
Well No. BJ-610

**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.

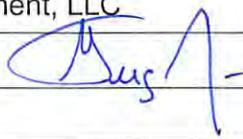
This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, 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: 6/27/16

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

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WW-9  
Rev. 5/08

Page \_\_\_\_\_ of \_\_\_\_\_  
API Number 47 - 91 - 00438  
Operator's Well No. BJ-610

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 Flag Run Quadrangle Thornton (638)

Elevation 1445 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 [Signature]

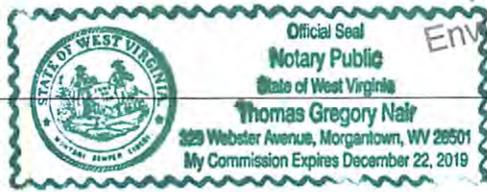
Company Official (Typed Name) Charles E. Duckworth

Company Official Title Designated Agent

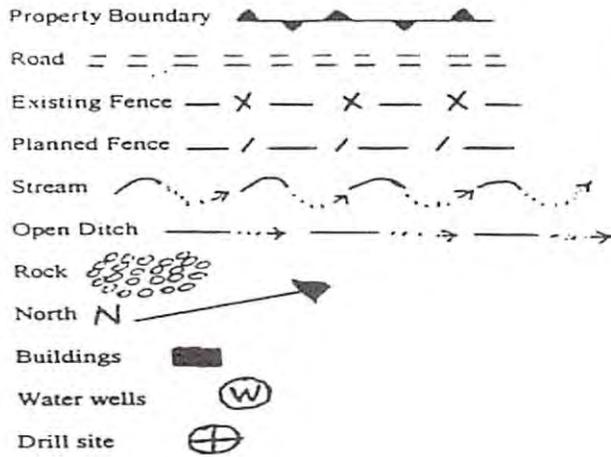
Subscribed and sworn before me this 27 day of June, 2016

[Signature] Notary Public

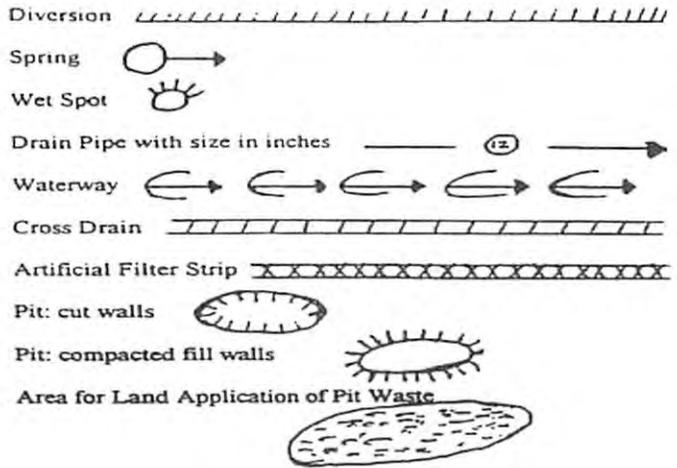
My commission expires December 22, 2019



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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	Seed Type	Area II	lbs/acre
Orchard Grass		12	Orchard Grass		12
Landino Clover		3	Landino Clover		3
Timothy		10	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: [Signature]

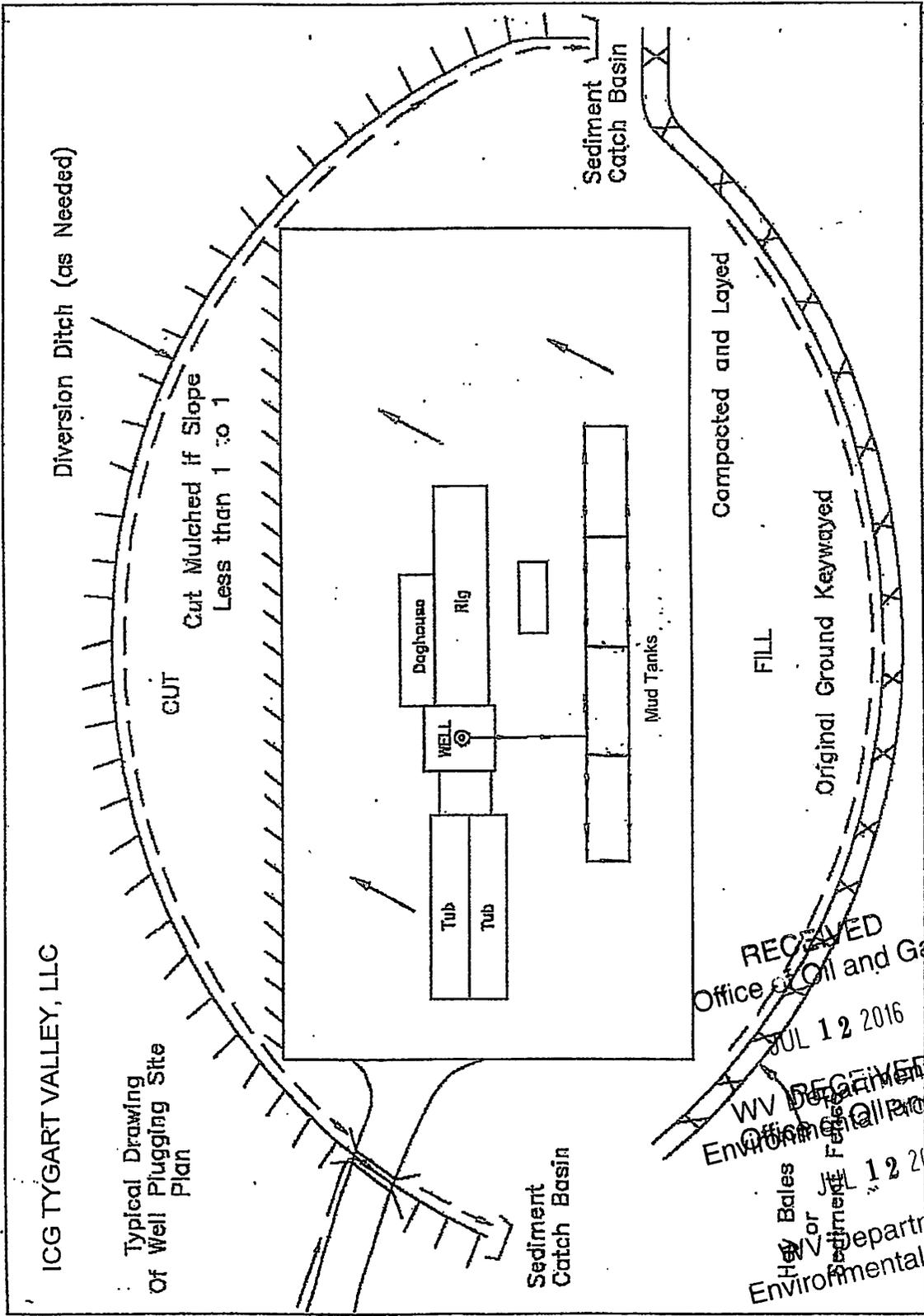
Comments: RECLAIM, SEED + MULCH ASAP

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JUL 12 2016  
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Title: OIL & GAS INSPECTION

Date: 7-18-16

Field Reviewed? ( ) Yes (  ) No



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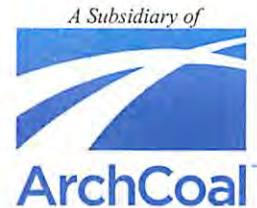
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WV Department of  
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Office of Air Quality  
Management

JUL 12 2016

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Environmental Protection

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## ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

June 27, 2016

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 or to an approved facility that can handle the material.

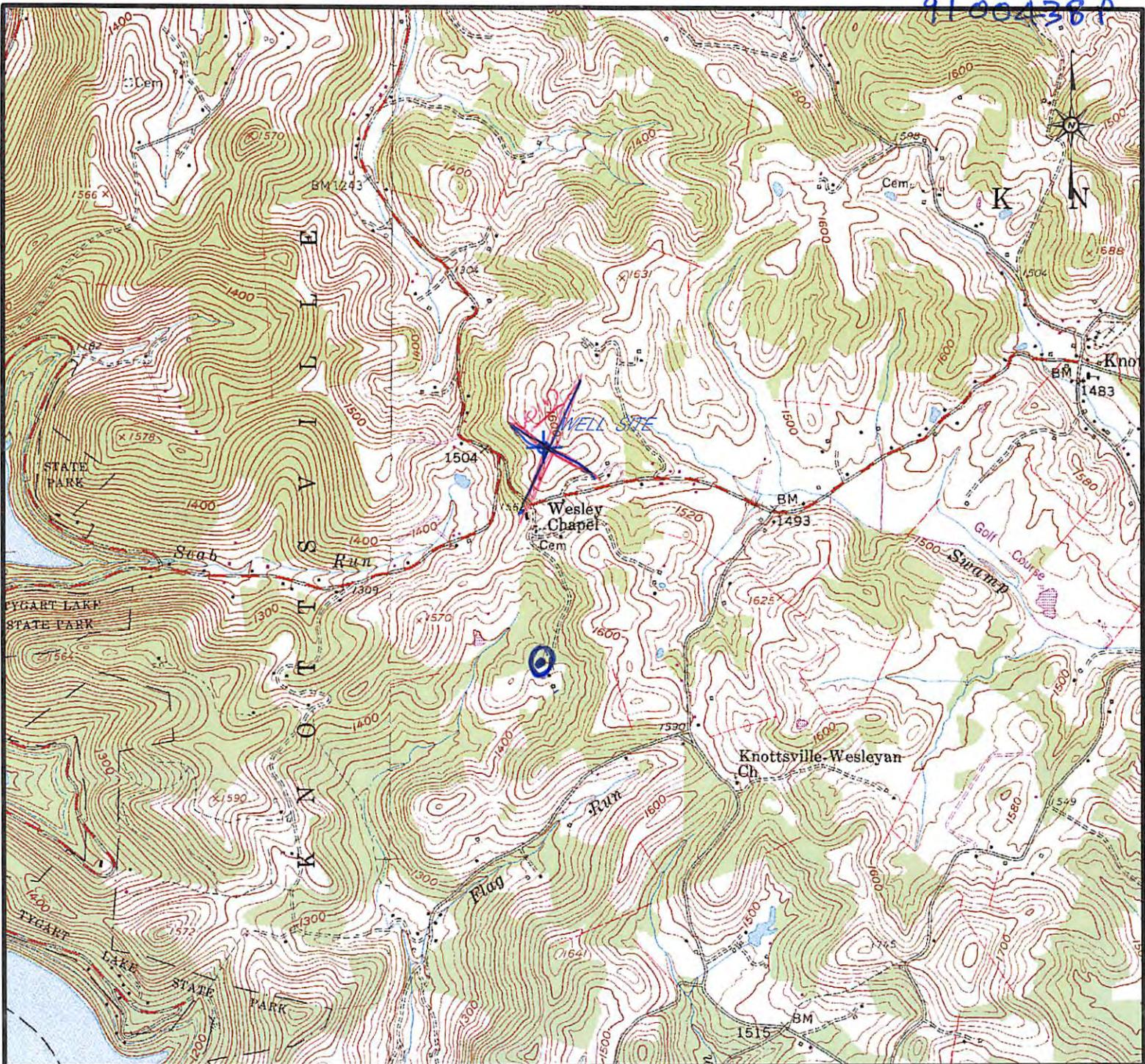
Sincerely,

Charles E. Duckworth  
Designated Agent

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JUL 12 2016  
WV Department of  
Environmental Protection



9100438A



LATITUDE: 39° 17' 58"  
 LONGITUDE: 79° 59' 34"  
 NEAREST WATERCOURSE: Flag Run  
 NEAREST TOWN: Knottsville

*REC 7-8-16*

OPERATOR'S WELL NO. \_\_\_\_\_  
 API WELL NO. BJ-610  
**47 - 091 - 00438**  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_\_\_ GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
 LOCATION: ELEVATION 1445 WATERSHED Flag Run  
 DISTRICT Knottsville COUNTY Taylor  
 QUADRANGLE Thornton 7 1/2'  
 SURFACE OWNER: Charles A. Smith ACREAGE 6.30  
 OIL & GAS ROYALTY OWNER: Charles A. Smith LEASE ACREAGE 6.30  
 LEASE NO. 2431  
 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 Haverly ESTIMATED DEPTH 5800'  
 WELL OPERATOR ICG Tygart Valley, LLC DESIGNATED AGENT Charles E. Duckworth  
 ADDRESS 100 Tygart Drive, Grafton, WV 26354 ADDRESS 100 Tygart Drive, Grafton, WV 26354

REVISED BY:	DATE:	<b>API WELL NO. 47-091-00438 BJ-610</b>	
		<b>ICG TYGART VALLEY, LLC</b> Office of Oil and Gas	
		DRAWN BY: <u>Jerry A. Hill</u>	SCALE: <u>1" = 2000'</u>
		DIRECTORY: <u>DWG 01/14/16</u> <u>WV DEPT OF GAS PERMIT MAPS</u>	DATE ORIGINATED: <u>April 2016</u>
		DRAWING NO: <u>47-091-00438 BJ-610.dgn</u>	PLOTTING: <u>\$24755</u>

PREPARED BY **ArchCoal** Environmental Protection  
 Eastern Operations  
 100 Tygart Drive, Grafton, WV 26354  
 Phone: 304-265-9700 Fax: 304-265-2564

9100438P

WW-7  
8-30-06



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

API: 47-091-000438 WELL NO.: BJ-610

FARM NAME: McVicker

RESPONSIBLE PARTY NAME: ICG Tygart Valley, LLC

COUNTY: Taylor DISTRICT: Knottsville

QUADRANGLE: Thornton

SURFACE OWNER: Charles A. Smith

ROYALTY OWNER: Charles A. Smith

UTM GPS NORTHING: 4350503.887

UTM GPS EASTING: 586852.430 GPS ELEVATION: 1448.47

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]  
Signature

Power of Attorney

Title

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Office of Oil and Gas  
JUL 12 2016  
June 27, 2016  
WV Department of Environmental Protection  
Date