

#### west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452 Jim Justice , Governor Austin Caperton , Cabinet Secretary www.dep.wv.gov

Thursday, March 23, 2017 WELL WORK PERMIT Not Available / Plugging

ICG TYGART VALLEY, LLC (A) 100 TYGART DR

GRAFTON, WV 26354

Re: Permit approval for 11169 47-091-00088-00-00

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: 11169 Farm Name: SWISHER, BLANCHE

U.S. WELL NUMBER: 47-091-00088-00-00

Not Available / Plugging

Date Issued: 3/23/2017

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**

- 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 February 9	9100088 P
2)Operator's Well No. 11169	
3) API Well No. 47	- 91 - 00088

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

	APPLICATION FOR A PER	RMIT TO PLUG AND ABANDON
4)	Well Type: Oil/ Gas/ Liqui	id injection/ Waste disposal/
	(If "Gas, Production or Un	nderground storage) Deep/ ShallowX
5)	Location: Elevation 1508	Watershed Flag Run
	District Knottsville	County Taylor Quadrangle Thornton (638)
	100 T	Objection F. Durchweigh
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 Name Kenneth Greynolds	9) Plugging Contractor  Name Coastal Drilling East, LLC
	Address 613 Broad Run Road	Address 130 Meadows Ridge Road
	Jane Lew, WV 26378	Mt. Morris, PA 15349
	ICG Tygart Val Leer Mine (MSHA II MSHA 101-C Docket No Approximate coal seam top ~ Approximate coal seam botto	o. M-2012-065-C ~ 546.4'
	ification must be given to the district of k can commence.  k order approved by inspector	oil and gas inspector 24 hours before permitted Office of Oil and Gas  Date  Date  Departm 03/24/201
		Environmental Protection

#### EXHIBIT NO. 1

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".

### Well Plugging Plan – Gas Well 47-091-00088P Farm name/well number: Blanche Swisher/11169

- Cleanout existing 8 5/8" casing from surface through the first cement plug, to
   1608'. (The 1608' elevation point is 100' below sea level.)
- Log hole from 1608' to surface (caliper, collar locator, gamma and bond log).
- Cement bottom hole from 1608' back to 952' (400' below Lower Kittanning Coal Seam) with 194 sacks of Class A cement. Estimated coal depth is 546.4' to 551.1'. Wait for cement 8 hours. Tag bottom hole plug at 952'.
- Section mill 26' window (536' to 562') in 8 5/8" casing, through Lower Kittanning Coal Seam.
- Clean hole back to surface from bottom plug at 952'. Log hole to verify window placement in 8 5/8" casing.
- Cement hole from 952' to surface with 281 sacks of Thixatropic cement.
- Install well marker as required at surface.

face area will be available. The fire hose will be located near the working face.

(5) Sufficient supplies of roof support and ventilation materials will be available and located near the working face. In addition, an emergency plug and/or plugs will be available within the immediate area of the well intersection.

(6) Equipment involved in mining through the well will be checked for permissibility and serviced on the maintenance shift prior to mining through the well. The methane monitor on the continuous mining machine involved in mining through the well will also be calibrated on the maintenance shift prior to mining

through the well.
(7) When mining is in progress, tests for methane will be made with a handheld methane detector at least every 10 minutes, from the time that mining with the continuous mining machine is within 30 feet of the well until the well is intersected, and immediately prior to mining through. During the actual cutting-through process, no individual will be allowed on the return side until mining-through has been completed and the area has been examined and declared safe.

(8) The working area will be free from accumulations of coal dust and coal spillages, and rock dust will be placed on the roof, rib, and floor to within 20 feet of the face when mining through the

well.

(9) When the well is intersected, all equipment will be deenergized and the place thoroughly examined and determined safe before mining is resumed.

(10) Any casing will be removed and no open flame will be permitted in the area until adequate ventilation has been

established around the well.

(11) After a well has been intersected and the working place determined safe, mining will continue inby the well at a distance sufficient to permit adequate ventilation around the area of the well.

(12) No person will be permitted in the area of the mining-through operation except those actually engaged in the operation, company personnel, personnel from MSHA, and personnel

from the Kentucky OMSL

(13) The mining-through operation will be under the direct supervision of a certified individual. Instructions concerning the mining-through operation will be issued only by the certified individual in charge. MSHA personnel may interrupt or halt the mining through operation when necessary for the safety of the miners.

(14) Within 30 days after this Order becomes final, the petitioner will submit (Oil and gas wells).

proposed revisions for its approved mine emergency evacuation and firefighting plan required by 30 CFR 75.1501. The petitioner will revise the plans to include the hazards and evacuation procedures to be used for well intersections.

The petitioner further states that this petition will apply to all types of mining (conventional, continuous, and longwall) and asserts that the proposed alternative method will at all times provide a measure of protection no less than that of the existing standard.

Docket Number: M-2012-064-C. Petitioner: Lone Mountain Processing, Inc., Drawer C, St. Charles, Virginia

24282.

Mine: Mine No. 1, MSHA I.D. No. 15-18734, Route 636 Benedict Road, St. Charles, Virginia 24282, located in Harlan County, Kentucky.

Regulation Affected: 30 CFR 75.208

(Warning devices).

Modification Request: The petitioner requests a modification of the existing standard to permit a readily visible warning to be posted at the second row of permanent roof support outby unsupported roof or a physical barrier to be installed to impede travel beyond permanent support, except during the installation of roof supports. The petitioner states that:

(1) The Kentucky Office of Mine Safety and Licensing requires "a warning device to be installed on the second row of permanent roof support

outby unsupported roof."

(2) MSHA's approved Precautions for Remote Control Operation of Continuous Mining Machines states that "While using remote controls, the continuous mining machine operator and all other persons will position themselves no closer than the second full row' of installed roof bolts outby the face."

(3) This petition is necessary to improve safety and to attain commonality between State and Federal

regulations.

(4) Safety increases when the distance an employee keeps from unsupported roof increases.

The petitioner asserts that the proposed alternative method will at all times guarantee no less than the same measure of protection afforded by the existing standard.

Docket Number: M-2012-065-C. Petitioner: ICG Tygart Valley, LLC, 1200 Tygart Drive, Grafton, West Virginia 26354.

Mine: Tygart #1 Mine, MSHA I.D. No. 46–09192, located in Taylor County,

West Virginia.

Regulation Affected: 30 CFR 75.1700

Modification Request: The petitioner requests a modification of the existing standard requiring that barriers be established and maintained around oil and gas wells penetrating coalbeds or underground areas of coal mines to permit an alternative method of compliance. The petitioner states that:

(1) The mine is projected to encounter vertical in-seam boreholes, typical to oil and natural gas wells, as mine

development progresses.

(2) The active development section is approaching these boreholes, and is projected to encounter additional boreholes in the future as mining

operations continue.

(3) The procedure presented in this petition will be used to ensure that mining through these boreholes is accomplished safely and, as an alternative to compliance with 30 CFR 75.1700, will provide no less than the same measure of protection to the miners, as required by the MSHA standard.

The petitioner proposes to use the following procedures when plugging oil

or gas wells:

(1) Prior to plugging an oil or gas well, a diligent effort will be made to clean the borehole to the original total depth. If this depth cannot be reached, the borehole will be cleaned out to a depth that would permit the placement of at least 200 feet of expanding cement below the base of the lowest minable coal bed.

(2) When cleaning the borehole, a diligent effort will be made to remove all of the casing in the borehole. If it is not possible to remove all of the casing, the casing that remains will be perforated or ripped at intervals spaced close enough to permit expanding cement slurry to infiltrate the annulus between the casing and the borehole wall for a distance of at least 200 feet below the base of the lowest minable coal bed.

(3) If the cleaned-out borehole produces gas, a mechanical bridge plug will be placed in the borehole in a competent stratum at least 200 feet below the base of the lowest minable coal bed, but above the top of the uppermost hydrocarbon-producing stratum. If it is not possible to set a mechanical bridge plug, a substantial brush plug may be used in its place.

The District Manager may allow the use of other effective methods of stopping any and all gas flow emitting from the wellbore before placement of cement through the minable coal seam(s). Such approval will be documented in a written response to the operators' submittal of a detailed explanation of the method to be used

and an engineering evaluation of the relative effectiveness of the alternative.

(4) A suite of logs will be made, consisting of a caliper survey, directional deviation survey, and log(s) suitable for determining the top and bottom of the lowest minable coal bed and potential hydrocarbon-producing strata and the location for the bridge

(5) If the uppermost hydrocarbonproducing stratum is within 200 feet of the base of the lowest minable coal bed, properly placed mechanical bridge plugs or a suitable brush plug described in paragraph (3) above will be used to isolate the hydrocarbon-producing stratum from the expanding cement plug. Nevertheless, a minimum of 200 feet of expanding cement will be placed below the lowest minable coal bed.

(6) The wellbore will be completely filled and circulated with a gel that inhibits any flow of gas, supports the walls of the borehole, and increases the density of the expanding cement. This gel will be pumped through open-end tubing run to a point approximately 20 feet above the bottom of the cleaned out area of the borehole or bridge plug.

The petitioner proposes to use the following procedures when plugging gas

and oil wells to the surface:

(1) A cement plug will be set in the wellbore by pumping expanding cement slurry down the tubing to displace the gel and fill the borehole to the surface. As an alternative, the cement slurry may be pumped down the tubing so that the borehole is filled. There will be at least 200 feet of expanding cement below the base of the lowest minable coal bed.

(2) A marker conforming to the requirements of the state regulatory authority will be installed at the borehole, or a small quantity of steel turnings or other small magnetic particles will be embedded in the top of the cement near the surface. The method used will be suitable to serve as a permanent magnetic monument of the borehole.

The following procedures will be used for the vent pipe method for

plugging oil and gas wells:
(1) A 4½-inch or larger pipe will be run into the wellbore to a depth of 100 feet below the lowest minable coal bed and wedged to a smaller diameter pipe that, if desired, will extend to a point approximately 20 feet above the bottom of the cleaned-out area of the borehole or bridge plug.

(2) A cement plug will be set in the wellbore by pumping expanding cement slurry, Portland cement, or a Portland cement-fly ash mixture down the tubing to displace the gel so that the borehole is filled with cement. The borehole and

the vent pipe will be filled with expanding cement for a minimum of 200 feet below the base of the lowest minable coal bed. The top of the expanding cement will extend upward to a point approximately 100 feet above the top of the lowest minable coal bed.

(3) All fluid will be evacuated from the vent pipe to facilitate testing for gases. During the evacuation of fluid, the expanding cement will not be

disturbed.

(4) The top of the vent pipe will be protected to prevent liquids or solids from entering the wellbore, but permit ready access to the full internal diameter of the vent pipe when

The petitioner proposes to use the following procedures when plugging oil or gas wells for subsequent use as

degasification boreholes:

(1) A cement plug will be set in the wellbore by pumping expanding cement slurry down the tubing to displace the gel and provide at least 200 feet of expanding cement below the lowest minable coal bed. The top of the expanding cement will extend upward to a point above the top of the coal bed being mined. This distance will be based on the average height of the roof strata breakage for the mine.

(2) To facilitate methane drainage, degasification casing of suitable diameter, slotted or perforated throughout its lower 150 to 200 feet, will be set in the borehole to a point 10 to 30 feet above the top of the expanding

cement.

(3) The annulus between the degasification casing and the borehole wall will be cemented from a point immediately above the slots or perforations to the surface.

(4) The degasification casing will be cleaned out for its total length.

(5) The top of the degasification casing will be fitted with a wellhead equipped as required by the District Manager. Such equipment may include check valves, shut-in valves, sampling port, flame arrestor equipment, and security fencing.

The following alternative procedures for preparing and plugging oil and gas wells will apply to wells that the petitioner and the District Manager agree cannot be completely cleaned out due to damage to the well caused by subsidence, caving, or other factors; as determined by the petitioner and agreed to by the District Manager. These provisions will apply unless alternative measures are agreed upon and based upon a plan submitted to the District Manager:

(1) The petitioner will drill a hole adjacent and parallel to the well to a depth of at least 200 feet below the lowest minable coal seam.

(2) The petitioner will use a geophysical sensing device to locate any casing that may remain in the well.

(3) If the well contains casing(s), the petitioner will drill into the well from the parallel hole. From 10 feet below the coal seam to 10 feet above the coal seam, the petitioner will perforate or rip all casings at intervals of at least 5 feet. Beyond this distance, the petitioner will perforate or rip at least every 50 feet from at least 200 feet below the base of the lowest minable coal seam up to 100 feet above the seam being mined. The petitioner will fill the annulus between the casing, and between the casings and the well wall with expanding cement (minimum 0.5 percent expansion upon setting), and will ensure that these areas contain no voids. If the petitioner, using a casing bond log, can demonstrate to the satisfaction of the District Manager that the annulus of the well is adequately sealed with cement, then the petitioner will not be required to perforate or rip the casing for that particular well or fill these areas with cement. When multiple casing and tubing strings are present in the coal horizon(s), any casing that remains will be ripped or perforated and filled with expanding cement as indicated above. An acceptable casing bond log for each casing and tubing string is needed if used in lieu of ripping or perforating multiple strings.

(4) Where the petitioner determines and the District Manager agrees that there is insufficient casing in the well to allow the method outlined in paragraph (3) above to be used, then the petitioner will use a horizontal hydraulic fracturing technique to intercept the original well. From at least 200 feet below the base of the lowest minable coal seam to a point at least 50 feet above the seam being mined, the petitioner will fracture at least six places at intervals to be agreed upon by the petitioner and the District Manager after considering the geological strata and the pressure within the well. The petitioner will then pump expanding cement into the fractured well in sufficient quantities and in a manner that fills all intercepted voids.

(5) The petitioner will prepare downhole logs for each well. The logs will consist of a caliper survey and log(s) suitable for determining the top, bottom, and thickness of all coal seams and potential hydrocarbon-producing strata and the location for the bridge plug. The petitioner may obtain the logs from the adjacent hole rather than the well if the condition of the well makes it impractical to insert the equipment

necessary to obtain the log. The District Manager may approve the use of a down-hole cameral survey in lieu of down-hole logs if, in his or her judgment, such logs would not be suitable for obtaining the data or are impractical to obtain due to the condition of the drill hole. A journal will be maintained describing the length and type material used to plug the well; the length of casing(s) removed, perforated, or ripped or left in place; and other pertinent information concerning sealing the well.

(6) After the petitioner has plugged the well, the petitioner will plug the open portions of both holes from the bottom to the surface with Portland cement or a lightweight cement mixture. The petitioner will embed steel turnings or other small magnetic particles in the top of the cement near the surface to serve as a permanent magnetic monument of the well. In the alternative, a 41/2-inch or larger casing set in cement will extend at least 36 inches above the ground level. A combination of the methods outlined in paragraph (3) and (4) above may have to be used in a single well, depending upon the conditions of the hole and the presence of casings. The petitioner and the District Manager may discuss the nature of each hole and the District Manager may require the use of more than one method.

The petitioner proposes to use the following cut-through procedures whenever the safety barrier diameter is reduced to a distance less than the District Manager would approve pursuant to § 75.1700 or the petitioner proceeds with an intent to cut through a plugged well:

(1) Prior to reducing the safety barrier to a distance less than the District Manager would approve or proceeding with intent to cut through a plugged well, the petitioner will notify the District Manager.

(2) Mining in close proximity to or through a plugged well will be done on a shift approved by the District

Manager.
(3) The District Manager, a representative of the miners, and the appropriate States agency will be notified by the operator in sufficient time prior to the mining-through operation to provide an opportunity for them to have a representative present.

(4) When using continuous mining equipment, drivage sights will be installed at the last open crosscut near the place to be mined to ensure intersection of the well. The drivage sights will not be more that 50 feet from the well. When using longwall mining methods, drivage sights will be installed

on 10-foot centers for a distance of 50 feet in advance of the well bore. The drivage sights will be installed in the headgate and tailgate.

(5) Firefighting equipment, including fire extinguishers, rock dust, and sufficient fire hose to reach the working face area of the mining-through will be available when either the conventional or continuous mining method is used. The fire hose will be located in the last open crosscut of the entry or room. All fire hoses will be ready for operation during the mining-through.

(6) Sufficient supplies of roof support and ventilation materials will be available and located at the last open crosscut. In addition, an emergency plug and/or plugs will be available in the immediate area of the cut-through.

(7) The quantity of air required by the approved mine ventilation plan, but not less than 6,000 cubic feet per minute (cfm) of air for scrubber-equipped continuous miners or not less than 9,000 cfm for continuous miner sections using auxiliary fans or line brattice only, will be used to ventilate the working face during the mining-through operation. The quantity of air required by the ventilation plan, but not less than 30,000 cfm, will reach the working face of each longwall during the mining-through operation.

(8) Equipment will be checked for permissibility and serviced on the shift prior to mining-through the well. The methane monitors on the continuous mining machine or the longwall shear and face will be calibrated on the shift prior to mining through the well.

(9) When mining is in progress, tests for methane will be made with a handheld methane detector at least every 10 minutes from the time that mining with the continuous mining machine is within 30 feet of the well until the well is intersected and immediately prior to mining through. When mining with longwall mining equipment, tests for methane will be made at least every 10 minutes when the longwall face is within 10 feet of the well. During the actual cutting-through process, no individual will be allowed on the return side until mining through has been completed and the area has been examined and declared safe.

(10) When using continuous mining methods, the working area will be free from accumulations of coal dust and coal spillages, and rock dust will be placed on the roof, rib, and floor to within 20 feet of the face when mining through or near the well on the shift or shifts during which the cut-through will occur. On longwall sections, rockdusting will be conducted and placed

on the roof, rib, and floor up to both headgate and tailgate gob.

(11) When the wellbore is intersected, all equipment will be deenergized and the area thoroughly examined and determined safe before mining is resumed. Any well casing will be removed and no open flame will be permitted in the area until adequate ventilation has been established around the wellbore.

(12) After a well has been intersected and the working area determined safe, mining will continue inby the well at a distance sufficient to permit adequate ventilation around the area of the wellbore.

(13) No person will be permitted in the area of the mining-through operation except those actually engaged in the operation, company personnel, representatives of the miners, personnel from MSHA, and personnel from the appropriate State agency.

(14) The mining-through operation will be under the direct supervision of a certified official. Instructions concerning the mining-through operation will be issued only by the certified official in charge. MSHA personnel may interrupt or halt the mining-through operation when necessary for the safety of the miners.

(15) The petitioner will file a plugging affidavit setting forth the persons who participated in the work, a description of the plugging work, and a certification by the petitioner that the well has been plugged as described.

(16) Within 60 days after the Proposed Decision and Order (PDO) becomes final, the petitioner will submit proposed revisions for its approved 30 CFR Part 48 training plan to the District Manager. The provisions will include initial and refresher training regarding compliance with the terms and conditions stated in the PDO.

The petitioner asserts that the proposed alternative method will at all times guarantee miners no less than the same measure of protection as afforded by the existing standard.

Docket Number: M–2012–002–M.
Petitioner: Hecla Greens Creek Mining
Company, P.O. Box 32199, Juneau,
Alaska 99803.

Mine: Greens Creek Mine, MSHA I.D. No. 50–01267, located in Juneau County, Alaska.

Regulation Affected: 30 CFR 57.14130 (Roll-over protective structures (ROPS) and seat belts for surface equipment).

Modification Request: The petitioner requests a modification of the existing standard to permit employees to be transported 1,600 feet to and from the surface dry facility to work sites underground using underground mine

FRAM DEIP

#### STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND DAS DIVISION

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#### AFFIDAVIT OF PLUGGING AND FILLING WELL

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#### STATE OF WEST VINGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

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Quadrangle	THORNTON
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WELL RECORD

Dry Oil or Gas Well.

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WW-4A Revised 6-07

1) Date: February 8, 2017 2) Operator's Well Number 11169

3) API Well No .: 47 -

00088

#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

(a) Name	Hart Industries, Inc.	Name	CoalQuest Development, LLC Wai w
Address	RR 1, Box 405-H	Address	100 Tygart Drive
	Grafton, West Virginia 26354	-	Grafton, West Virginia 26354
(b) Name		(b) Coal Ov	vner(s) with Declaration
Address		Name	(1111 / V) (1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111 - 1111
	<b>V</b>	Address	
			-
(c) Name		Name	
Address		Address	
100000000	·	_	
6) Inspector	Kenneth Greynolds	- (a) Conl I o	ssee with Declaration
Address	613 Broad Run Road	_ (c) Coar Le Name	ssee with Declaration
Audress	Jane Lew, WV 26378	_ Address	
Tolonbono	(304) 206-6613	- Address	-
Telephone	(304) 200-0013	-	
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Oil and Gas Privacy Notice

My Commission Expires

December 22, 2019

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. Ou office will appropriately secure your personal information. If you have any questions about our of your personal of information, please contact DEP's Chief Privacy Officer at depprivacyoffier@wv.gov.



### ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

February 15, 2017

Hart Industries, Inc. RR 1, Box 405-H Grafton, West Virginia 26354

Re: Plugging Permit – API # 47-91-00088 – 11169

Dear Sir:

As required by the permit process of the WV Department of Environmental Protection – Office of Oil and Gas enclosed please find a copy of the plugging permit application for the above referenced well that ICG Tygart Valley, LLC plans to submit to the WV Department of Environmental Protection, Office of Oil and Gas.

If you have no objection to the plugging permit application, please sign the page titled Surface Owner Waiver and return in the enclosed self-addressed stamped envelope.

If you should have any questions concerning this application please feel free to contact Charles Duckworth at (304) 265-9704 or me at (304) 265-9778 or via email at <a href="mailto:gnair@archcoal.com">gnair@archcoal.com</a>.

Sincerely,

Greg Nair

Manager Surface Mine Planning

Enclosures

CERTIFIED MAIL NO. 7011 3500 0001 0569 6819 RETURN RECEIPT REQUESTED

RECEIVED
Office of Oil and Gas
FEB 2 I 2017
WV Department of
Environmental Protection

#### **POWER OF ATTORNEY**

ICG TYGART VALLEY, LLC
TO
GREG NAIR

Dated: January 1, 2017

Expires: December 31, 2017

KNOW ALL MEN BY THESE PRESENTS: That ICG Tygart Valley, LLC, a limited liability company formed under the laws of the State of Delaware (the "Company"), acting by and through Robert G. Jones, its duly authorized Secretary, 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, 2017, 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 as of the day and year first above written, by the undersigned, Robert G. Jones, duly authorized Secretary of the Company.

ICG TYGART VALLEY, LLC

Robert G. Jo

Secretary

RECEIVED
Office of Oil and Gas
FEB 2 1 2017

WV Department of Environmental Protection 03/24/2017

STATE OF MISSOURI	)
	) ss
COUNTY OF ST. LOUIS	)

On this 2d day of January, 2017, before me, the undersigned notary public, personally appeared Robert G. Jones, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public

My Commission Expires: Warmlet, 20,

PEGGY FELDMANN
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis CoMy Commission Exples: December 0:
Commission Number: F135526

PECEIVED
Office of Oil and Gas
FEB 2 1 2017
WV Department of 2017
Environmental Policetion

#### **SURFACE OWNER WAIVER**

Operator's Well Number

1116	69	1	1	1
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#### 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 57th St. SE
Charleston, WV 25304
(304) 926-0450

<u>Time Limits and methods for filing comments.</u> 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.

<u>Comments must be in writing.</u> 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		planned wo	rk described in these	materials, and I have no
objection to a permit being issued on th	ose materials.		a. RE	CEIVER
FOR EXECUTION BY A NATURAL P	ERSON		FOR EXPANATION	N BY Æ CORPORATION,
ETC.				CEVECORPORATION, Oil and Gas
	Data	Name	FEB	<b>2</b> 1 2017
	Date			2) ± (V)/
Signature		$\mathbf{B}\mathbf{y}$	WV D.	
		Its	Enviro Depi	Partment of Date
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			Signature	artment of Date laid Protection Date

#### POWER OF ATTORNEY

# COALQUEST DEVELOPMENT LLC TO GREG NAIR

Dated: January 1, 2017

Expires: December 31, 2017

KNOW ALL MEN BY THESE PRESENTS: That CoalQuest Development LLC, a limited liability company formed under the laws of the State of Delaware (the "Company"), acting by and through Robert G. Jones, its duly authorized Secretary, 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, 2017, 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 as of the day and year first above written, by the undersigned, Robert G. Jones, duly authorized Secretary of the Company.

COALQUEST DEVELOPMENT LLC

Robert G. Jones

Secretary

Office of Oil and Gas

WV Department of Environmental By 2 to 2 1 2017

STATE OF MISSOURI	)
	) ss
COUNTY OF ST. LOUIS	)

On this 2d day of January, 2017, before me, the undersigned notary public, personally appeared Robert G. Jones, known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public

My Commission Expires: Weember 1, 2017

PEGGY FELDMANN
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: December 01, 2017
Commission Number: F13552693

RECEIVED
Office of Oil and Gas
FEB 2 1 2017

WV Department of Environmental Protection 03/249211017

	91000886
API No.	47-91-00088
Farm Name	Blanche Swisher
Well No.	11169

#### 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 then 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.

	WA	IVER		
The undersigned coal opera has examined this proposed pluggir done at this location, provided, the Virginia Code and the governing re-	ng work order. The e well operator has	undersigned has	s no objection to th	e work proposed to be
Date: 2/14/17	C	oalQuest Devel	opment, LLC	<b>^</b>
3 100	By	Greg Nair	Sur/	-
	Its	Power of Attorr	ney	

Office of Oil and Gas

FEB 2 1 2017

WV Department of 24/2017

Environmental Protection

Page		of	91000884
API Number 47 - 91	-	00088	
Operator's Well No. 11169			

# 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

atershed Flag Run					
		Quadrangle Thornton (638)			
evation 1508	Tay	/lor	D	istrict Knottsville	
escription of anticipate	d Pit Waste: N/A				
ill a synthetic liner be	used in the pit? N/A				
oposed Disposal Meth	od For Treated Pit Wastes: Land Application				
-	Underground Injection ( UIC	Permit Nur	nher		)
-	Reuse (at API Number	. Chille I vul			
	Off Site Dispposal (Supply fo	rm W/W/_0	for disposal location		
X		ttached lett	er alsposar location,		
oposed Work For Whi	ch Pit Will Be Used:				
	_ Drilling		Swabbing		
	Workover	X	Plugging		
	Other (Explain				
w or regulation can lea	d to enforcement action.				nd/or other appli
I certify under optication form and a ptaining the informationalties for submitting company Official Signa company Official (Typ	nd to enforcement action.  penalty of law that I have perall attachments thereto and that on, I believe that the information false information, including the ture  Charles E. Ducky	, based on on is true, possibility o	mined and am fami my inquiry of tho accurate, and comp	se individuals immedi lete. I am aware that	on submitted or ately responsibl
I certify under optication form and a ptaining the informationalties for submitting company Official Signa company Official (Typ	nd to enforcement action.  penalty of law that I have perall attachments thereto and that on, I believe that the information false information, including the ture	, based on on is true, possibility o	mined and am fami my inquiry of tho accurate, and comp	se individuals immedi lete. I am aware that ent.	on submitted or ately responsibl
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### ICG TYGART VALLEY, LLC

100 Tygart Drive, Grafton, West Virginia 26354

February 8, 2017

NO PIT

WV Department of Environmental Protection Office of Oil and Gas  $601 - 57^{th}$  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

Office of Oil and Gas

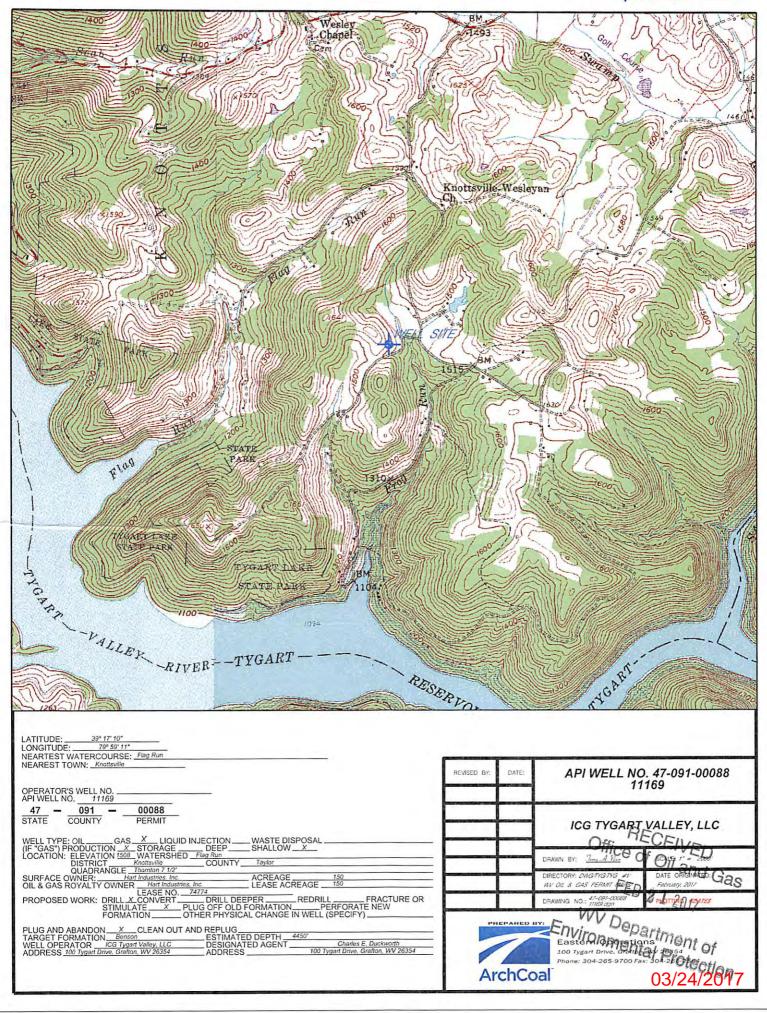
FEB 2 1 2017

WV Department of 03/24/2017

Environmental Protection

L	ECEND	
Property Boundary	Diversion (1.11/11/11/11/11/11/11/11/11/11/11/11/11	
Road	Spring	
Existing Fence — X — X — X —	Wet Spot	
Planned Fence / / /	Drain Pipe with size in inches	® <b>&gt;</b>
Stream	Waterway $\longleftrightarrow$	+ <b>←</b> ←
Open Ditch ————————————————————————————————————	Cross Drain	
Rock 68588	Artificial Filter Strip XXXXXX	
North N	Pit: cut walls	
Buildings	Pit: compacted fill walls	<u> </u>
Water wells	Area for Land Application of Pit Wa	ste
Drill site		
Proposed Revegetation Treatment: Acres Disturbed 1.50/	2.0 Prevegetation pH	
3 7/	6.5	
Lime Tons/acre or to correct to pH	<del></del>	
Fertilizer (10-20-20 or equivalent)lbs/a	cre (500 lbs minimum)	
Mulch Hay BalesTons/ac	re	
Seed	Mixtures	
Area I	Area II	
Seed Type lbs/acre	Seed Type	lbs/acre
Orchard Grass 12	Orchard Grass	12
Landino Clover 3	Landino Clover	3
Timothy 10	Timothy	10
Timodify		
Attach: Drawing(s) of road, location,pit and proposed area for land appli	cation.	
Photocopied section of involved 7.5' topographic sheet.	·	
See attached		
2/111		
Plan Approved by: January Hunnel		
Plan Approved by: Samuel Lune M. Comments: RESIAIM, RESIED M.	IVICH ASAP	
· · · · · · · · · · · · · · · · · · ·		
		RECEIVED
	2-17-17	ffice of Oil and Goo
Title: UIL (~6H) INSPECTOR	Date:	ads
Title: OIL 1 6AS INSPECTOR  Field Reviewed? () Yes (V	_) No	FEB 2 1 2017

91000889





## West Virginia Department of Environmental Protection Office of Oil and Gas

## WELL LOCATION FORM: GPS

API: 47-091-00088	WELL NO.: 11169
FARM NAME: Blanche Swishe	r
RESPONSIBLE PARTY NAI	ME: ICG Tygart Valley, LLC
COUNTY: Taylor	DISTRICT: Knottsville
SURFACE OWNER: Hart In	dustries, Inc.
ROYALTY OWNER: Hart li	ndistries, Inc.
UTM GPS NORTHING: 4349	.493 GPS ELEVATION: 1506.59
UTM GPS EASTING: 587414	.493 GPS ELEVATION: 1506.59
<ul><li>height above mean s</li><li>Accuracy to Datum</li><li>Data Collection Met</li></ul>	
	eal-Time DifferentialX
Mapping Grade GPS:	Post Processed Differential
	Real-Time Differential

6819	U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)			
99	For delivery information visit our website at www.usps.com			
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0569	Postage \$ 1.41			
	Certified Fee 3.35			
0007	Return Receipt Fee (Endorsement Required)			
	Restricted Delivery Fee (Endorsement Required)			
3500	Total Postage & Fees \$ 7.71			
707	Hart Industries, Inc.  Street, Apt. Ni. or PO Box No City, State, Zii  Hart Industries, Inc. RR 1, Box 405-H Grafton, West Virginia 26354			
	PS Form 3800			

PECEIVED
Office of Oil and des
FEB 2 I 2017
WV Department of
Environmental Protection