



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Friday, May 25, 2018
WELL WORK PERMIT
Vertical / Plugging

UNIVERSITY OF CHARLESTON, INC.
2300 MACCORKLE AVENUE, SE

CHARLESTON, WV 25304

Re: Permit approval for 825370
47-039-05644-00-00

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: 825370
Farm Name: UNIVERSITY OF CHARLESTON
U.S. WELL NUMBER: 47-039-05644-00-00
Vertical Plugging
Date Issued: 5/25/2018

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.

4703905644P

- 1) Date _____, 20____
- 2) Operator's Well No. 825370
- 3) API Well No. 47-39-05644

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 ____

5) Location: Elevation 592 Watershed Kanawha River
District Kanawha City Corp County Kanawha Quadrangle Charleston East

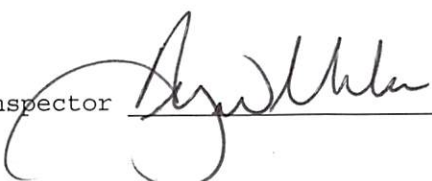
6) Well Operator University of Charleston Inc. 7) Designated Agent Jerry Forster
Address 2300 MacCorkle Ave. SE Address 2300 MacCorkle Ave. SE
Charleston, WV 25304 Charleston, WV 25304

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Terry Urban Name Contractor Services Inc. of WV
Address P.O. Box 1207 Address 929 Charleston Road
Clendenin, WV 25405 Spencer, WV 25276

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

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WV Department of
Environmental Protection

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

Work order approved by inspector  Date 5-21-18

05/25/2018

4703905644P

Well Plugging Procedures for
University of Charleston, Inc. Well
API #039-05644

1. Move in, rig up. Blow down well to pit.
2. Run in hole with sound line and check T.D. (4119')
3. Attempt to pull out all casings pursuant to DEP inspector instructions.
4. Load hole with water and run bond log and determine if 3 1/2" is free.
5. If 3 1/2" is free, we will try to pull 3 1/2".
6. Trip in hole with 1 1/2" tubing and set cement plug from 4119' to 3300'. Trip out of hole.
7. Rig up wire line truck, run in hole and shoot off 3 1/2" tubing. Pull tubing if possible.
8. Trip in hole with cement string and set cement plug from 3300' to 1500' Trip out cement string.
9. Load hole with water and run bond log to determine if 5 1/2" is free.
10. If pipe is free, try to pull 5 1/2" if possible.
11. If 5 1/2" will not release, perforate, trip in hole with cement string and set cement plug from 1500' to surface. Trip out.
12. Will attempt to pull 9 5/8" casing.
13. If 9 5/8" can't be pulled, run cement string to ^{425'}~~300'~~ and set cement plug from ^{425'}~~300'~~ *from* to surface. Trip out.
14. Set monument, move off, reclaim.

Handwritten signature
5-21-18
Duke will care
All pets

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Environmental Protection

05/25/2018

47039056 4P

WR-35

Date 04/27/2004
API # 47-039-05644

AP

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name: The University of Charleston, Inc.

Operator Well No.: 25370

LOCATION Elevation: 592' GL
District: _____
Latitude: 14300 ft South of 38° 22' 30"
Longitude: 11100 ft West of 81° 35' 00"

Quadrangle: Charleston East
County: Kanawha

Company: Columbia Natural Resources
P.O. Box 6070
Charleston, WV 25362-000

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill-Up Cu.Ft.
16"	86' KB	86' KB	Driven
9 5/8"	309' KB	309' KB	225
7"	1222' KB	1222' KB	283
5 1/2"	1506' KB	1506' KB	86
3 1/2"	4083' KB	4083' KB	105

Agent: Mike John
Inspector: Carlos Hively
Date Permit Issued: 12/15/2003
Date Well work commenced: 03/08/2004
Date Well Work completed: 03/26/2004
Verbal Plugging Permission
Granted on / /
Rotary Cable Rig
Total Depth (ft): DTD: 4109' LTD: 4119'
Fresh Water Depth (ft): 28', 47', 92'
Salt Water Depth (ft.): 670', 1266'
Is coal being mined in area (Yes No
Coal Depths (ft): 372' - 375'

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COVER UP cement JUL 26 2004

Open Flow Data
Pay Zone Depth 1620 ft to 1800 ft

1st Producing Formation Weir/Pocono
Gas: Initial Open Flow 85 Mcf/day Oil: Initial Open Flow bbbl/day
Final Open Flow 85 Mcf/day Final Open Flow bbbl/day
Time of Open Flow between Initial and Final Tests 120 hours
Static Rock Pressure 510 psig after 48 hours

2nd Producing Formation Lower Huron Shale
Pay Zone Depth 3324 ft to 3842 ft
Gas: Initial Open Flow 297 Mcf/day Oil: Initial Open Flow bbbl/day
Final Open Flow 85 Mcf/day Final Open Flow bbbl/day
Time of Open Flow between Initial and Final Tests 144 hours
Static Rock Pressure 460 psig after 72 hours

3rd Producing Formation
Pay Zone Depth ft to ft
Gas: Initial Open Flow Mcf/day Oil: Initial Open Flow bbbl/day
Final Open Flow Mcf/day Final Open Flow bbbl/day
Time of Open Flow between Initial and Final Tests hours
Static Rock Pressure psig after hours

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NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: Michael John
COLUMBIA NATURAL RESOURCES, INC.
By: Michael John - Sr. Vice President
Date: July 23, 2004

WV Department of Environmental Protection
05/25/2018

Columbia Natural Resources
Well No.: 25370

47039056449

Perforated Intervals

1st Stage Lower Huron 45 holes from 3324 ft to 3842 ft
 2nd Stage holes from ft to ft
 3rd Stage holes from ft to ft

Fracturing / Stimulation

1st Stage Lower Huron Type of Treatment Nitrogen Frac
 Total Acid 0 Gal of 0% HCl Breakdown Pressure 2803 psi
 Average Rate 59,020 scf/min or bpm ATP 3641 psi MTP 3834 psi
 Total Fluid bbl Total Nitrogen 2002700 scf Total Sand lb of
 ISIP 1306 psi 5 min 1236 psi

2nd Stage Type of Treatment
 Total Acid Gal of % HCl Breakdown Pressure psi
 Average Rate scf/min or bpm ATP psi MTP psi
 Total Fluid bbl Total Nitrogen scf Total Sand lb of
 ISIP psi min psi

3rd Stage Type of Treatment
 Total Acid Gal of % HCl Breakdown Pressure psi
 Average Rate scf/min or bpm ATP psi MTP psi
 Total Fluid bbl Total Nitrogen scf Total Sand lb of
 ISIP psi min psi

Well Log

Formation Name	Top	Bottom	Comments
Soil	0	1	
Flyash	1	46	
Creek Gravel	46	50	
Sand and Shale	50	372	
Coal	372	375	
Sand and Shale	375	424	
Salt Sand	424	1094	
Sand and Shale	1094	1176	
Little Lime	1176	1216	
Big Lime	1216	1382	
Sand and Shale	1382	1396	
Injun	1396	1436	
Sand and Shale	1436	1620	
Weir	1620	1684	
Pocono Shale	1684	1830	
Sunbury Shale	1830	1844	
Berea	1844	1852	
Devonian Shale	1852	3044	
Lower Huron	3044	4109	
	LTD:	4119	
	DTD:	4109	

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05/25/2018

FORM W-0

LONG. 81°37'19.8"

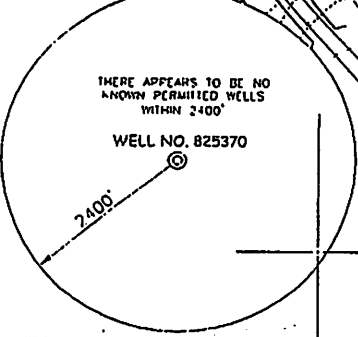
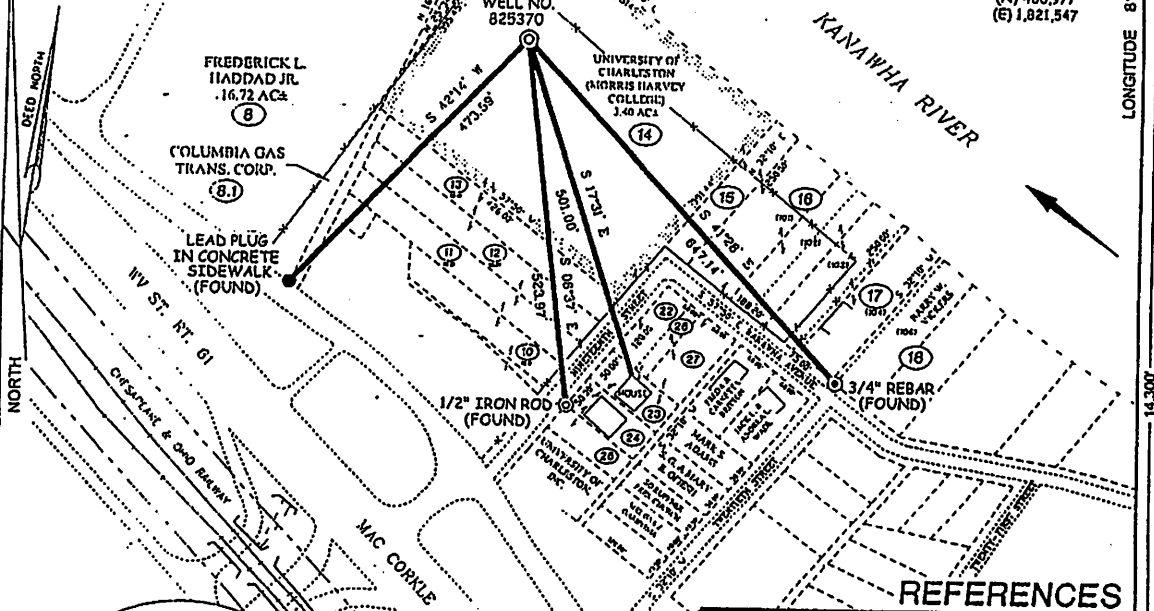
11,100'

LATITUDE 38°22'30"

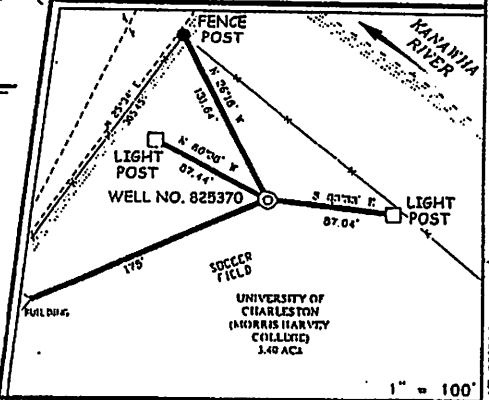
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UNIVERSITY OF CHARLESTON WELL NO. 825370

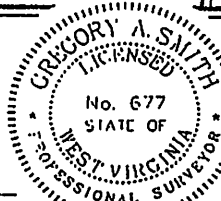
WELL NO.
825370
STATE PLANE
COORDINATES
(N) 486,977
(E) 1,821,547



- NOTES ON SURVEY**
1. TIES TO WELLS, CORNERS AND REFERENCES ARE BASED ON MAGNETIC NORTH ON SITE OCTOBER 29, 2003.
 2. LOT/TRACT BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOKS 761/434, 910/73 AND MAP BOOK 2/146.
 3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF KANAWHA COUNTY IN OCTOBER, 2003.
 4. WELL LAT./LONG. ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).
 5. LOT NO'S SHOWN IN ().
 6. TAX PARCEL NO.'S SHOWN IN ().
 7. LOT/TRACT ON KANAWHA CITY CORPORATION TAX MAP NO. 1.



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 DIVISION OF ENVIRONMENTAL PROTECTION.



P.S. 677 *Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE NOVEMBER 12, 20 03
 OPERATORS WELL NO. 825370
 API WELL NO. 47-039-05644
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 5401P825370R (142-53)
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 200'

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

WELL TYPE:	OIL	GAS	<input checked="" type="checkbox"/> LIQUID INJECTION	WASTE DISPOSAL	IF "GAS" PRODUCTION	<input checked="" type="checkbox"/> STORAGE	DEEP	SHALLOW	<input checked="" type="checkbox"/>			
LOCATION:	ELEVATION	<u>592'</u>	WATERSHED	<u>KANAWHA RIVER</u>	DISTRICT	<u>KANAWHA CITY CORP.</u>	COUNTY	<u>KANAWHA</u>	QUADRANGLE	<u>CHARLESTON EAST 7.5'</u>		
SURFACE OWNER	<u>THE UNIVERSITY OF CHARLESTON, INC.</u>		ACREAGE	<u>3.40±</u>		ROYALTY OWNER	<u>THE UNIVERSITY OF CHARLESTON, INC.</u>		LEASE ACREAGE	<u>3.40±</u>		
PROPOSED WORK:	DRILL	<input checked="" type="checkbox"/>	CONVERT	DRILL DEEPER	REDRILL	FRACTURE OR STIMULATE	<input checked="" type="checkbox"/>	PLUG OFF OLD FORMATION	PERFORATE NEW FORMATION	PLUG AND ABANDON	CLEAN OUT AND REPLUG	OTHER
PHYSICAL CHANGE IN WELL (SPECIFY)			TARGET FORMATION	<u>DEVONIAN SHALE</u>		ESTIMATED DEPTH	<u>4,100'</u>					

WELL OPERATOR THE UNIVERSITY OF CHARLESTON, INC. DESIGNATED AGENT CLETA HARLESS
 ADDRESS 2300 MAC CORKLE AVENUE SE CHARLESTON, WV 25304 ADDRESS 2300 MAC CORKLE AVENUE SE CHARLESTON, WV 25304

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 Office of Oil and Gas
 WV Department of Environmental Protection
 MAY 21 2011

LONGITUDE 81°35'00" 14,300' LAT. 38°20'08.5"

COUNTY MAP PERMIT

05/25/2018

WW-4A
Revised 6-07

4703905644P
5.21.18

1) Date: _____
2) Operator's Well Number
825370

3) API Well No.: 47 - 39 - 05644

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>University of Charleston, Inc.</u>	Name _____
Address <u>2300 MacCorkle Ave. SE</u>	Address _____
<u>Charleston, WV 25304</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name _____
	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Terry Urban</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 1207</u>	Name _____
<u>Clendenin, WV 25405</u>	Address _____
Telephone <u>304-549-5915</u>	

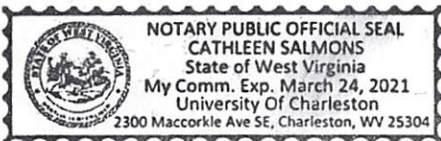
TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (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 University of Charleston, Inc.
 By: Jerry Forster Jerry Forster
 Its: Chief of Staff
 Address 2300 MacCorkle Ave. SE
Charleston, WV 25304
 Telephone 304-352-0020



Subscribed and sworn before me this 21 day of May 2018
Cathleen Salmons Notary Public
 My Commission Expires March 24, 2021
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 Office of Oil and Gas

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. 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.

MAY 21 2018
WV Department of
Environmental Protection
05/25/2018

4703905644P

SURFACE OWNER WAIVER

Operator's Well Number 825370

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

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.

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Office of Oil and Gas

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. MAY 21 2018

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.

WV Department of Environmental Protection
FOR EXECUTION BY A CORPORATION

_____	Date _____	Name _____	University of Charleston, Inc.
Signature		By _____	
		Its _____	Date 5/21/18
		Signature _____	Date 05/25/2018

WW-4B

API No. 47-39-05644 **4703905644P**
Farm Name University of Charleston, Inc.
Well No. 825370

**INSTRUCTIONS TO COAL OPERATORS
OWNERS AND LESSEE**

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

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

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

WAIVER

The undersigned coal operator ____/ owner ____/ 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: _____

By: _____

Its _____

*No known operator, owner,
or lessee of workable
coalbed/seam on this tract.*

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MAY 21 2018

WV Department of
Environmental Protection

05/25/2018

4703905644P

WW-9
(5/16)

API Number 47 - 39 - 05644
Operator's Well No. 825370

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name University of Charleston, Inc. OP Code 494464716
Watershed (HUC 10) Kanawha River Quadrangle Charleston East

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

Will a pit be used? Yes No

IN 5-2118

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- _____ Land Application (if selected provide a completed form WW-9-GPP)
- _____ Underground Injection (UIC Permit Number _____)
- _____ Reuse (at API Number _____)
- X Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A

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

-Landfill or offsite name/permit number? _____

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 Jerry Forster
Company Official (Typed Name) Jerry Forster
Company Official Title Chief of Staff

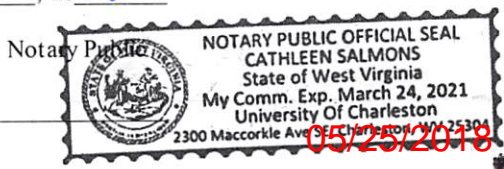
MAY 21 2018

WV Department of
Environmental Protection

Subscribed and sworn before me this 21 day of May, 2018

Cathleen Salmon

My commission expires March 24, 2021



Operator's Well No. 825370

Proposed Revegetation Treatment: Acres Disturbed .5 Prevegetation pH 5.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type _____

Fertilizer amount 0.25 lbs/acre

Mulch Hay 2 Tons/acre

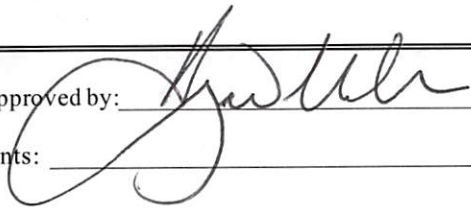
Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Ladino Clover	5
Red Top Clover	15	KY 31	40

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: 

Comments: _____

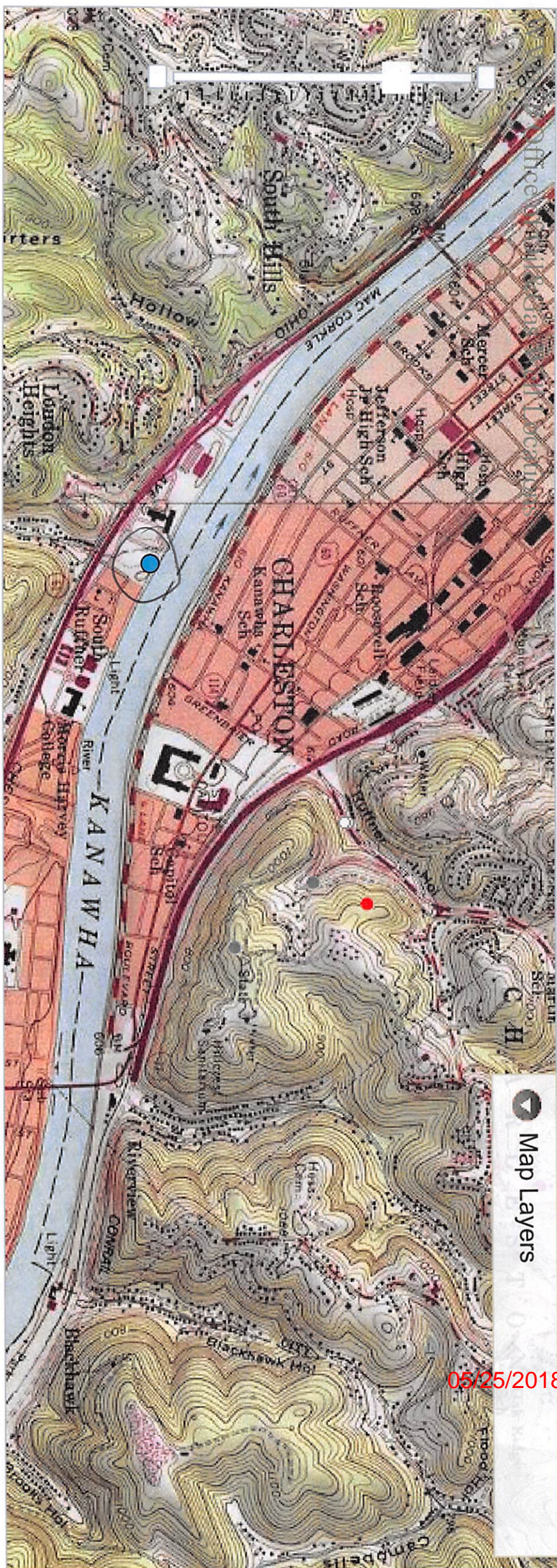
Title: Inspection of E&GAS

Date: 5-21-18

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Field Reviewed? Yes No

MAY 21 2018



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MAY 21 2018

WV Department of
Environmental Protection

05/25/2018

WW-7
8-30-06



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

API: 47-39-05644 WELL NO.: 825370
 FARM NAME: University of Charleston, Inc.
 RESPONSIBLE PARTY NAME: University of Charleston, Inc.
 COUNTY: Kanawha DISTRICT: Kanawha City Corp. CHARLESTON
 QUADRANGLE: Charleston East
 SURFACE OWNER: University of Charleston, Inc.
 ROYALTY OWNER: University of Charleston, Inc.
 UTM GPS NORTHING: 4243260.8
 UTM GPS EASTING: 445637.4 GPS ELEVATION: 592'

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 ____

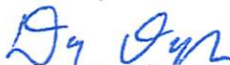
Real-Time Differential ____

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.

 Land Manager/Conserv 05/22/2018
 Signature Title Date

05/25/2018