



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, June 21, 2019
WELL WORK PERMIT
Vertical / Re-Work

HAUGHT ENERGY CORPORATION
12864 STAUNTON TURNPIKE
SMITHVILLE, WV 261787004

Re: Permit approval for MCFADDEN P-1
47-085-09496-00-00

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

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over the typed name and title.

Operator's Well Number: MCFADDEN P-1
Farm Name: HEARTWOOD FORESTLAND
U.S. WELL NUMBER: 47-085-09496-00-00
Vertical Re-Work
Date Issued: 6/21/2019

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Haught Energy Corporation

494494463	Ritchie	Murphy	Smithville
Operator ID	County	District	Quadrangle

2) Operator's Well Number: McFadden P-1 3) Elevation: 1053'

4) Well Type: (a) Oil or Gas
(b) If Gas: Production / Underground Storage _____
Deep _____ / Shallow

*CK 1337
\$ 550.00
Michael Goff
4/10/19*

5) Proposed Target Formation(s): Benson / Alexander / Hamilton Proposed Target Depth: 4,200 - 5,700

6) Proposed Total Depth: 5,700' Feet Formation at Proposed Total Depth: Rhinstreet

7) Approximate fresh water strata depths: 120'

8) Approximate salt water depths: None

9) Approximate coal seam depths: None

10) Approximate void depths, (coal, Karst, other): None

11) Does land contain coal seams tributary to active mine? No

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)

Plug Onandoga and Marcellus Formation in preparation for horizontal drilling and completion in the Marcellus formation in the surrounding area. Also perforate and Simulate with Nitrogen the Benson/Alexander/Hamilton Formations once plug back operations are completed. Perforation Intervals will include 4210-4230, 4465-4490, 4620-4640, 5005-5030 & 5585-5700.

*5600.
J. Murray*

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft	For Drilling	Left in Well	
Conductor						
Fresh Water	9-5/8"	R-3	26 #		336'	Surface (134 Cu. Ft.)
Coal						
Intermediate	7"	R-3	17 #		2,016'	Surface (358 Cu. Ft.)
Production	4-1/2"	M-65	10.5 #		6,128'	3,420' (300 Cu. Ft.)
Tubing						
Liners						

Packers: Kind: _____
Sizes: _____
Depths Set _____



Wellbore Schematic Plugging

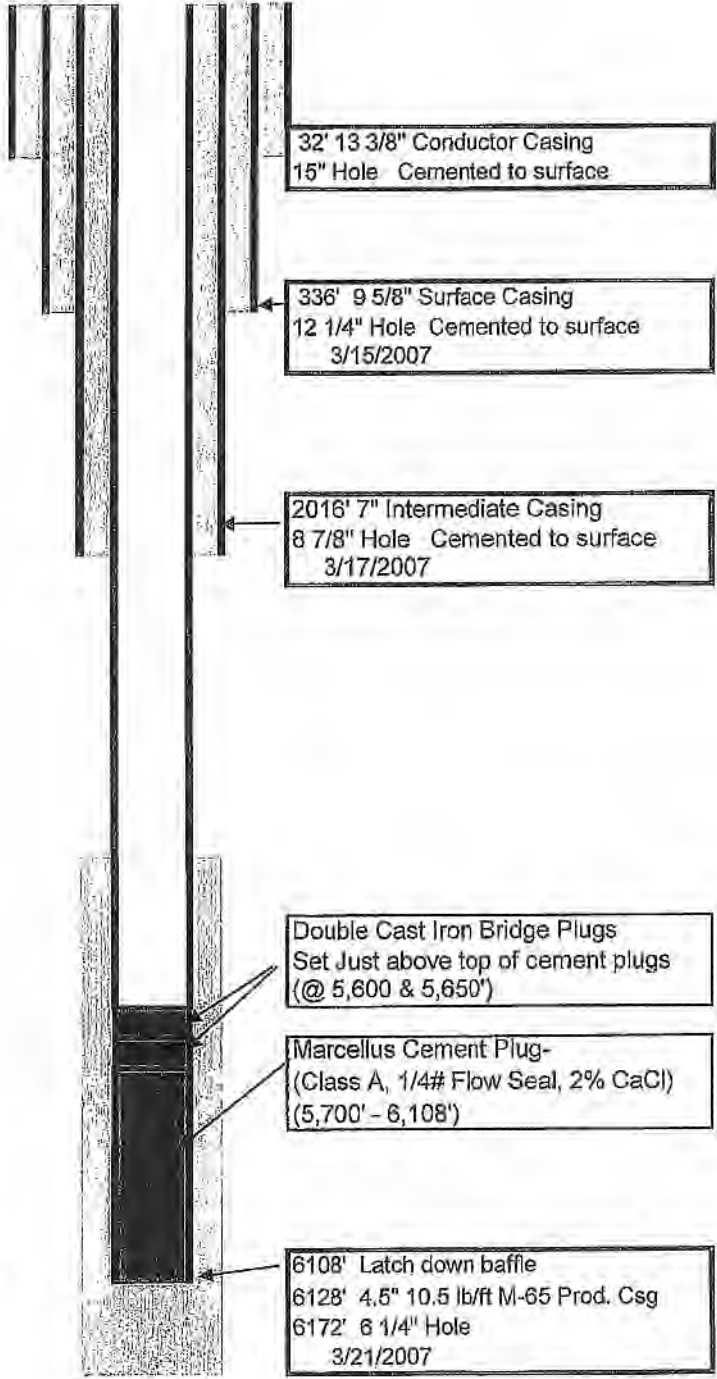
Well: **McFadden P-1**
API: **47-085-9496**

Current Status
- Frac complete on 4/13/07
- 6018' of 2 3/8" tubing w/ 18' mud anchor installed on 10/2/07 (to be removed for plug job)

Action Items
- Plug Back Marcellus formation in preparation of horizontal development

Loggers TD **6108**

TOC **3420**



32' 13 3/8" Conductor Casing
15" Hole - Cemented to surface

336' 9 5/8" Surface Casing
12 1/4" Hole - Cemented to surface
3/15/2007

2016' 7" Intermediate Casing
8 7/8" Hole - Cemented to surface
3/17/2007

Double Cast Iron Bridge Plugs
Set Just above top of cement plugs
(@ 5,600 & 5,650')

Marcellus Cement Plug-
(Class A, 1/4# Flow Seal, 2% CaCl)
(5,700' - 6,108')

6108' Latch down baffle
6128' 4.5" 10.5 lb/ft M-65 Prod. Csg
6172' 6 1/4" Hole
3/21/2007

Perforations:

6054	6069	3 spf @ 60 degree phasing w/ HSC
6080	6090	

47-085-09496W

WR-35
Rev (5-01)

DATE: October 4, 2007
API #: 47-085-09496

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

Well Operator's Report of Well Work

Farm name: Heartwood Forestland
LOCATION: Elevation: 1053'

Operator Well No.: McFadden P-1
Quadrangle: Smithville

District: Murphy County: Ritchie
Latitude: 39.10404 Feet South of 39 Deg. 06 Min. 14.5 Sec.
Longitude 81.10033 Feet West of 81 Deg. 06 Min. 01.2 Sec.

Company: PetroEdge Resources (WV) LLC

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 2925 Briarpark Drive Suite 150 Houston TX 77042				
Agent: Dan Mullins				
Inspector: Steve Mossor				
Date Permit Issued: 2/12/2007				
Date Well Work Commenced: 3/14/07				
Date Well Work Completed: 5/13/07				
Verbal Plugging:	9 5/8"	336'	336'	Surface 134 cu ft
Date Permission granted on:	7"	2016'	2016'	Surface 338 cu ft
Rotary Cable Rig	4 1/2"	6128'	6128'	3420 300 cu ft
Total Depth (feet): 6172'				
Fresh Water Depth (ft.): N/A				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): N/A				

OPEN FLOW DATA

Producing formation Devonian Series Pay zone depth (ft) 6054'-6090'
Gas: Initial open flow 140 MCF/d Oil: Initial open flow 0 bpd
Final open flow 73 MCF/d Final open flow 0 bpd
Time of open flow between initial and final tests 48 Hours
Static rock Pressure 580 psig (surface pressure) after 48 Hours

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FEB 20 2008

WV Department of
Environmental Protection

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: _____

By: Sam Wiley, Operations Manager

Date: _____

Smithville 1

47-085-09496W

WW-2A
(Rev. 6-14)

1). Date: 3-26-19
2.) Operator's Well Number McFadden P-1
State County Permit
3.) API Well No.: 47-085-09496 W

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: 5) (a) Coal Operator
(a) Name Heartwood Forestland Fund IV ✓ Name _____
Address 19045 Stone Mountain Rd Address _____
Abinadon, VA 24210-1701
(b) Name _____ (b) Coal Owner(s) with Declaration **RECEIVED**
Address _____ Name **OFFICE OF OIL AND GAS**
Address _____ **APR 15 2019**
(c) Name _____ Name _____
Address _____ Address _____
6) Inspector Michael Goff (c) Coal Lessee with Declaration
Address 1723 Auburn Road Name _____
Pullman, WV 26421 Address _____
Telephone 304-549-9823

TO THE PERSONS NAMED ABOVE TAKE NOTICE THAT:

OR Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas

X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through ___ on the above named parties by:

- _____ Personal Service (Affidavit attached)
- X _____ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, and I agree to the terms and conditions of any permit issued under this application.

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, 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 and imprisonment.

Well Operator Haugt Energy Corporation
By: [Signature]
Its: CEO
Address: 12864 Staunton TPKE
Smithville, WV 26178
Telephone: 304-477-3333
Email: rhaugt@haugtenergy.com



Subscribed and sworn before me this 26th day of March, 2019

[Signature] Notary Public

My Commission Expires Oct. 18, 2023

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

WW-2A1
(Rev. 1/11)

Operator's Well Number McFadden P-1

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
McFadden Heirs	Dale Wolfe	12.5%	121/300, 122/13
Dale Wolfe	Warren Haught	12.5% + 2.734375%	123/152
Warren Haught	710 Corporation	Same as above	176/609
710 Corporation	Whittle Corporation	Same as above	234/182
Whittle Corporation	Haught Energy Corporation	Same as above	As Attached

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

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Office of Oil and Gas**

JUN 20 2019

**WV Department of
Environmental Protection**

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:
By: Its:

Haught Energy Corporation

CEO

AGREEMENT

THIS AGREEMENT , Made this 1st day of December, 2010, by and between Whittle Corporation, HC 68 Box 14, Smithville, WV 26178 as party of the First part and Haught Energy Corporation, HC 68 Box 14, Smithville, WV 26178 as Party of the second part.

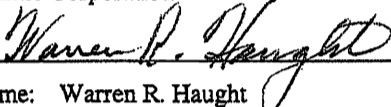
WHEREAS:

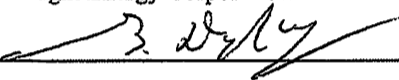
Haught Energy Corporation is the parent company of Whittle Corporation.

WITNESSETH:

Whittle Corporation gives Haught Energy Corporation the right to operate and develop any leases that are owned by Whittle Corporation within the State of West Virginia.

IN WITNESS WHEREOF, the Parties have caused this Assignment to be properly executed the day and year first above written.

Whittle Corporation

Name: Warren R. Haught
Title: President

Haught Energy Corporation

Name: B. Douglas Haught
Title: President

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Office of Oil and Gas

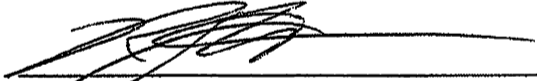
JUN 20 2019

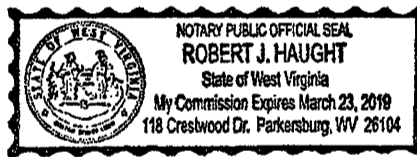
WV Department of
Environmental Protection

STATE OF WEST VIRGINIA

COUNTY OF RITCHIE

BE IT KNOWN, that on this 1st day of December, 2010, before me, the undersigned authority, personally came and appeared WARREN R. HAUGHT appearing herein in his capacity as the PRESIDENT of WHITTLE CORPORATION, to me personally know to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.

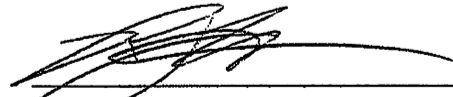

NOTARY PUBLIC

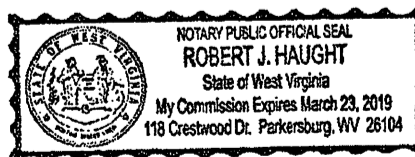


STATE OF WEST VIRGINIA

COUNTY OF RITCHIE

BE IT KNOWN, that on this 1st day of December, 2010, before me, the undersigned authority, personally came and appeared B. DOUGLAS HAUGHT appearing herein in his capacity as PRESIDENT of HAUGHT ENERGY CORPORATION, to me personally know to be the identical person whose name is subscribed to the foregoing instrument as the said officer of said corporation, and declared and acknowledged to me, Notary, that he executed the same on behalf of said corporation, and that the said instrument is the free act and deed of the said corporation and was executed for the uses, purposes and benefits therein expressed.


NOTARY PUBLIC



This Document Prepared by:

Whittle Corporation
HC 68 Box 14
Smithville, WV 26178

WW-9
(5/16)

API Number 47 - 085 - 09496
Operator's Well No. McFadden P-1

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

Operator Name Haught Energy Corporation OP Code 494494463

Watershed (HUC 10) Dry Run Quadrangle Smithville

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

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? 8 20 ml.

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number UICD08510142)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain No pit waste is anticipated, however any waste will be removed to an approved off site disposal facility)

Will closed loop system be used? If so, describe: NA

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

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

Additives to be used in drilling medium? NA

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. NA

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

-Landfill or offsite name/permit number? To be determined upon approval of permit

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 [Signature]

Company Official (Typed Name) B. Douglas Haught

Company Official Title CEO

Subscribed and sworn before me this 20th day of December, 20 18

[Signature] Notary Public

My commission expires October 18, 2023



47-085-09446W

Form WW-9

Operator's Well No. McFadden P-1

Proposed Revegetation Treatment: Acres Disturbed 1 AC +/- Prevegetation pH 5.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or Equivalent

Fertilizer amount 500 lbs/acre

Mulch 50 Bales Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
<u>Pasture Mix</u>	<u>100</u>
<u>(Orchard Grass, Rye, Timothy, Clover)</u>	

Seed Type	lbs/acre
<u>Pasture Mix</u>	<u>100</u>
<u>(Orchard Grass, Rye, Timothy, Clover)</u>	

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: Michael Gaff

Comments: Re seed & mulch any disturbed areas

Title: Oil & Gas Inspector Date: 4/10/19

Field Reviewed? () Yes () No

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

Operator Name: Haight Energy Corporation

Watershed (HUC 10): Dry Run Quad: Smithville

Farm Name: _____

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

NA

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

NA

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

NA

4. Summarize all activities at your facility that are already regulated for groundwater protection.

NA

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

NA

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

NA

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

NA

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

NA

Signature: _____

Date: _____

47-085-09496W



WW-7
8-30-06



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

API: 47-085-09496 WELL NO.: McFadden P-1

FARM NAME: McFadden

RESPONSIBLE PARTY NAME: Haught Energy Corporation

COUNTY: Ritchie DISTRICT: Murphy

QUADRANGLE: Smithville

SURFACE OWNER: Heartwood Forestland Fund IV

ROYALTY OWNER: Wm McFadden Heirs, Et Al

UTM GPS NORTHING: 4328326.05

UTM GPS EASTING: 491325.29 GPS ELEVATION: 1053'

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

CEO
Title

12-20-18
Date

WW-2B1
(5-12)

Well No. McFadden P-1

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contractor chosen to collect sample.

Certified Laboratory Name Microbac Laboratory
Sampling Contractor 158 Starlight Dr, Marietta, OH 45750

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OFFICE OF OIL AND GAS

APR 15 2019

Well Operator Haught Energy Corporation
Address 12864 Staunton TPKE
Smithville, WV 26178
Telephone 304-477-3333

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

***No Drilling work being completed on the subject well. The lower producing zones of the well are being plugged back in preparation of Horizontal Development on the property. Perforation and Stimulation of the subject well is going to be completed after plug back operations are completed. No water samples to be collected for this work as no drilling is being completed.

47-085-09496 W

7018 2290 0001 4065 7679

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee \$ 3.50

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 2.80

Return Receipt (electronic) \$ _____

Certified Mail Restricted Delivery \$ _____

Adult Signature Required \$ _____

Adult Signature Restricted Delivery \$ _____

Postage \$ 1.45

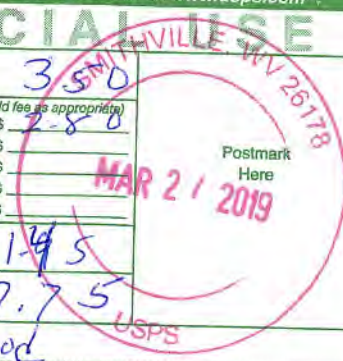
Total Postage and Fees \$ 7.75

Sent To Heartwood

Street and Apt. No., of PO Box No. _____

City, State, ZIP+4® _____

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



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Office of Oil and Gas

APR 15 2019

WV Department of
Environmental Protection



SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____</p> <p>C. Date of Delivery _____</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p><u>HARTWOOD FORESTLAND FUND IV</u> <u>19045 STONE MOUNTAIN RD.</u> <u>ABINGTON VA 24210-1701</u></p>	<p>3. Service Type</p> <p><input type="checkbox"/> Adult Signature <input type="checkbox"/> Priority Mail Express®</p> <p><input type="checkbox"/> Adult Signature Restricted Delivery <input type="checkbox"/> Registered Mail™</p> <p><input type="checkbox"/> Certified Mail® <input type="checkbox"/> Registered Mail Restricted Delivery</p> <p><input type="checkbox"/> Certified Mail Restricted Delivery <input type="checkbox"/> Return Receipt for Merchandise</p> <p><input type="checkbox"/> Collect on Delivery <input type="checkbox"/> Signature Confirmation™</p> <p><input type="checkbox"/> Collect on Delivery Restricted Delivery <input type="checkbox"/> Signature Confirmation Restricted Delivery</p> <p><input type="checkbox"/> Insured Mail <input type="checkbox"/> Signature Confirmation Restricted Delivery (over \$500)</p>
<p>2. Article Number (Transfer from service label)</p> <p><u>9590 9402 4466 8248 4719 32</u></p>	
PS Form 3811, July 2015 PSN 7530-02-000-9053	Domestic Return Receipt

WW-2A Surface Waiver
(4/16)

SURFACE OWNER WAIVER

County 085

Operator _____

Operator well number McFadden P-1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A is applying for a permit from the State to do oil or gas well work. (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 **FIFTEEN (15) 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.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

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 Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, WW-9, and a soil and erosion plan, all for proposed well work on my surface land as described therein.

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

FOR EXECUTION BY A CORPORATION, ETC.

Signature Date _____

Print Name

Company Name _____
By _____
Its _____ Date _____

Signature Date _____

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Ritchie

Operator Haught Energy Corporation

Operator's Well Number McFadden P-1

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator ____/ owner ____/ lessee ____/ of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. 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.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature

Date

Company Name
By

Its

Date

Signature

Date

*** No Coal operators located on the subject property



Select County: (085) Ritchie Select datatypes: (Check All)

Enter Permit #: 09496

Location Production Plugging
 Owner/Completion Stratigraphy Sample
 Pay/ShowWater Logs Btm Hole Loc

Get Data Reset

- [Table Descriptions](#)
- [County Code Translations](#)
- [Permit-Numbering Series](#)
- [Usage Notes](#)
- [Contact Information](#)
- [Disclaimer](#)
- [WVGES Main](#)
- ["Pipeline-Plus" New](#)

WV Geological & Economic Survey:

Well: County = 85 Permit = 09496

Report Time: Tuesday, May 21, 2019 1:53:28 PM

Location Information: [View Map](#)

API	COUNTY	PERMIT	TAX DISTRICT	QUAD	QUAD_16	LAT_DD	LONG_DD	UTME	UTMN
4708509496	Ritchie	9496	Murphy	Smithville	Harrisville	39.104053	-81.100291	491328.4	4328328.4

There is no Bottom Hole Location data for this well

Owner Information:

API	CMP_DT	SUFFIX	STATUS	SURFACE_OWNER	WELL_NUM	CO_NUM	LEASE	LEASE_NUM	MINERAL_OWN	OPERATOR_AT_COMPLETION	PROP_VD	PROP_TRGT_FM	TFM_EST_PR
4708509496	5/13/2007	Original Loc	Completed	Heartwood Forestland Fund IV	P-1		McFadden		Wm.McFadden Heira et al	PetroEdge Resources WV, LLC	6250	Hamilton Grp	

Completion Information:

API	CMP_DT	SPUD_DT	ELEV DATUM	FIELD	DEEPEST_FM	DEEPEST_FMT	INITIAL_CLASS	FINAL_CLASS	TYPE	RIG	CMP_MTHD	TVD	TMD	NEW_FTG	KOD	G_BEF	G_AFT	O_BEF	O_AFT	NGL_BEF	NGL_AFT	P_BEF	TI_BEF	P_AFT	TI_AFT	BM_P_BE
4708509496	5/13/2007	3/14/2007	1053	Ground Level	Mahonee(Smithvie)	Onondaga Ls	Marcellus Fm	Development Well	Development Well	Gas	Rotary	Fractured	6172		6172	140	73								580	48

Pay/Show/Water Information:

API	CMP_DT	ACTIVITY	PRODUCT	SECTION	DEPTH_TOP	FM_TOP	DEPTH_BOT	FM_BOT	G_BEF	G_AFT	O_BEF	O_AFT	WATER_QNTY
4708509496	5/13/2007	Pay	Gas	Vertical	6054	Marcellus Fm	6090	Marcellus Fm					

Production Gas Information: (Volumes in Mcf) * 2018 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN GAS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4708509496	PetroEdge Resources WV, LLC	2007	15,473	1,827	-673	0	0	0	1,336	3,356	2,538	663	2,442	2,171	1,793
4708509496	Quest Eastern Resource, LLC	2008	15,085	1,872	1,367	1,447	1,380	788	1,124	1,515	1,303	1,047	1,133	1,062	1,047
4708509496	Quest Eastern Resource, LLC	2009	11,834	880	1,029	1,088	1,079	1,075	1,041	860	982	935	988	935	942
4708509496	Quest Eastern Resource, LLC	2010	9,969	730	436	618	792	1,084	1,042	1,077	919	803	860	777	831
4708509496	Postrock Eastern Production LLC	2011	8,866	676	770	827	821	815	762	777	112	867	780	730	709
4708509496	Postrock Eastern Production LLC	2012	7,088	691	626	656	597	627	465	464	620	590	607	587	548
4708509496	Postrock Eastern Production LLC	2013	6,525	528	483	521	547	554	534	552	555	532	550	520	548
4708509496	Postrock Eastern Production LLC	2014	5,500	517	460	474	437	475	467	483	472	422	434	438	421
4708509496	Postrock Eastern Production LLC	2015	4,741	338	396	440	397	418	390	367	381	365	446	386	407
4708509496	Haught Energy Corp.	2016	2,542	0	0	0	0	0	395	452	431	284	217	428	335
4708509496	Haught Energy Corp.	2017	2,729	0	0	213	264	310	209	328	267	263	257	321	299

Production Oil Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil * 2018 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN OIL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4708509496	PetroEdge Resources WV, LLC	2007	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Quest Eastern Resource, LLC	2008	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Quest Eastern Resource, LLC	2009	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Quest Eastern Resource, LLC	2010	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2011	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2012	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Haught Energy Corp.	2016	0												
4708509496	Haught Energy Corp.	2017	0												

Production NGL Information: (Volumes in Bbl) ** some operators may have reported NGL under Oil * 2018 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN NGL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4708509496	Postrock Eastern Production LLC	2013	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2014	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Postrock Eastern Production LLC	2015	0	0	0	0	0	0	0	0	0	0	0	0	0
4708509496	Haught Energy Corp.	2016	0												

Production Water Information: (Volumes in Gallons) * 2018 data for H6A wells only. Other wells are incomplete at this time.

API	PRODUCING_OPERATOR	PRD_YEAR	ANN WTR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DCM
4708509496	Haught Energy Corp.	2016	0												

Stratigraphy Information:

API	SUFFIX	FM	FM_QUALITY	DEPTH_TOP	DEPTH_QUALITY	THICKNESS	THICKNESS_QUALITY	ELEV	DATUM
4708509496	Original Loc	Big Lime	Well Record	1952	Qstnble Pick	110	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Big Injun (undiff)	Well Record	2062	Qstnble Pick	386	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Berea Ss	Well Record	2448	Qstnble Pick	376	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Gordon	Well Record	2824	Qstnble Pick	712	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Warren	Well Record	3538	Qstnble Pick	927	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Riley	Well Record	4463	Qstnble Pick	269	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Java Fm	Well Record	4762	Qstnble Pick	158	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Alexander	Well Record	4920	Qstnble Pick	77	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Alexander	Well Record	4997	Qstnble Pick	270	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Rhinesstret Sh	Well Record	5267	Qstnble Pick	137	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Elk	Well Record	5404	Qstnble Pick	171	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Hamilton Grp	Well Record	5575	Qstnble Pick	136	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Cashaqua Sh Mbr	Well Record	5711	Qstnble Pick	121	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Middlesex Sh	Well Record	5832	Qstnble Pick	75	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	West River Sh Mbr	Well Record	5907	Qstnble Pick	118	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Marcellus Fm	Well Record	6025	Qstnble Pick	70	Qstnble Pick	1053	Ground Level
4708509496	Original Loc	Onondaga Ls	Well Record	6095	Qstnble Pick	77	Qstnble Pick	1053	Ground Level

47-085-09496W

Wireline (E-Log) Information:

API	LOG_TOP	LOG_BOT	DEEPEST_FML	LOGS_AVAIL	SCAN	DIGITIZED	GR_TOP	GR_BOT	D_TOP	D_BOT	N_TOP	N_BOT	L_TOP	L_BOT	T_TOP	T_BOT	S_TOP	S_BOT	O_TOP	O_BOT	INCH2	INCH6	REDUCED	KOP	LOGMD	ELEV_KB	ELEV_GL	ELEV_DF	LOG_MSRD_FRO
4708509496	1928	6170	Onondaga Ls	G.D.N.I.T.C.*	Y	N	1928	6143	1928	6160	1928	6155	1928	6170	1928	6170			1928	6170	N	Y	N						

Comment: *logs: caliper, PE, gas det., cement bond, CCL, AMP

Downloadable Log Images: We advise you to save the log image file to your PC for viewing. To do so, right-click the .tif image of interest and select the save option. Then you can direct the file to a location of your choice. Please note these images vary in size and some may take several minutes to download, especially if using a 56k or slower dialup connection.

Quick Reference Guide for Log File Names For more info about WVGES scanned logs click [here](#)

FILENAME
4708509496abpo.tif
4708509496ndnitceo.tif

geologic log types:

- d density (includes bulk density, compensated density, density, density porosity, grain density, matrix density, etc.)
- e photoelectric adsorption (PE or Pe, etc.)
- g gamma ray
- i induction (includes dual induction, medium induction, deep induction, etc.)
- l laterolog
- m dipmeter
- n neutron (includes neutron porosity, sidewall neutron--SWN, etc.)
- o other¹
- s sonic or velocity
- t temperature (includes borehole temperature, BHT, differential temperature, etc.)
- z spontaneous potential or potential

mechanical log types:

- b cement bond
- c caliper
- o other¹
- p perforation depth control or perforate

¹other logs may include, but are not limited to, such curves as audio, bit size, CCL--casing collar locator, continuous meter, directional survey, gas detector, guard, NCTL--Nuclear Cement Top Locator, radioactive tracer, tension

There is no Plugging data for this well

There is no Sample data for this well

47-085-09496W