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west virginia department of environmental protection

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

Austin Caperton , Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, February 05, 2018  
WELL WORK PERMIT  
Vertical / Plugging

DUCKWORTH, STEVE WELL SERVICE  
P O BOX 6871

CHARLESTON, WV 253620000

Re: Permit approval for 2  
47-087-01937-00-00

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: 2  
Farm Name: SOUTHEASTERN  
U.S. WELL NUMBER: 47-087-01937-00-00  
Vertical / Plugging  
Date Issued: 2/5/2018

Promoting a healthy environment.

02/09/2018

# 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

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date December 8, 2017  
2) Operator's  
Well No. Potato Run #2  
3) API Well No. 47-087 - 01937

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 X / Liquid injection \_\_\_ / Waste disposal \_\_\_ /  
(If "Gas, Production X or Underground storage \_\_\_) Deep \_\_\_ / Shallow X

5) Location: Elevation 757.95' Watershed Potato Run  
District Walton County Roane Quadrangle Clio 7.5'

6) Well Operator Steve Duckworth Well Service 7) Designated Agent Steve Duckworth  
Address 181 Sugarcamp Rd. Address 181 Sugarcamp Rd.  
Gassaway, WV 26624 Gassaway, WV 26624

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Joe Taylor Name Steve Duckworth Well Service  
Address 1478 Claylick Rd. Address 181 Sugarcamp Rd.  
Ripley, WV 25271 Gassaway, WV 26624

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

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

Work order approved by inspector Joe Taylor  
gwm for

Date

2/5/2018

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WV Department of  
Environmental Protection

02/09/2018

### Plugging Procedure

#### Potato Run #2

TD of 4-1/2" = 1800'  
 Estimated 4-1/2" TOC @ 950' (calculated).  
 TD of 8-5/8" @ 166'  
 Estimated 8-5/8" TOC @ circulated to surface  
 Perfs @ 1256'-1266' and 1675'-1695'

- 1-Circulate hole full of gel.
- 2-Pump 100' cmt plug (approx. 15 sx) across perfs from 1620'-1720'.
- 3-Gel to 1300'.
- 4-Pump 100' cmt plug (approx. 15 sx) across perfs from 1200'-1300'.
- 5-Gel to 950'.
- 6-Cut 4-1/2" at free point (approx. 950').
- 7-Pump 100' cmt plug (approx. 20 sx) across pipe cut from 900'-1000'.
- 8-Gel to 200'. <sup>216'</sup>
- 9-Pump ~~200'~~<sup>216'</sup> cmt plug (approx. 60 sx) from 0'-~~200'~~<sup>216'</sup>.
- 10- Install monument with API #.

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Form OG-10



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS WELLS DIVISION

OIL & GAS DIVISION  
DEPT. OF MINES

- Spudder
- Cable Tools
- Storage
- c. well

38-45  
8-4

Quadrangle Walton, S. E.  
Permit No. Roane 1937

WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company Pilot Oil & Gas Corporation  
Address 1404 Commerce Sq. Charleston, W. Va.  
Farm Southeastern-Potato Run Acres \_\_\_\_\_  
Location (waters) Potato Run  
Well No. 2 Elev. 765 KB  
District Walton County Roane  
The surface of tract is owned in fee by \_\_\_\_\_  
Address \_\_\_\_\_  
Mineral rights are owned by United Fuel Gas  
Address \_\_\_\_\_  
Drilling commenced 8-2-71  
Drilling completed 8-5-71  
Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow \_\_\_\_\_ /10hrs Water in \_\_\_\_\_ Inch  
\_\_\_\_\_ /10hrs Merc. in \_\_\_\_\_ Inch  
Volume \_\_\_\_\_ Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED (DETAILS) \_\_\_\_\_  
WELL FRACTURED (DETAILS) 481 Bbls Water, 21,000# Sand  
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 90.7 Mcfpd  
ROCK PRESSURE AFTER TREATMENT 385/24 HOURS \_\_\_\_\_  
Fresh Water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Salt Sand Depth 1256 - 1266

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
13			
10			Size of
<u>8-5/8</u>	<u>166</u>	<u>166</u>	
6 3/4			Depth set
<u>5 3/16</u>			
<u>4 1/2</u>	<u>1800</u>	<u>1800</u>	
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Attach copy of cementing record.  
CASING CEMENTED 4 1/2 SIZE 1800 No. Ft. 8-6-71 Date  
Amount of cement used (bags) 100 SX  
Name of Service Co. Dowell  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand & Shale			0	120			
Sand			120	160			
Sand & Shale			160	495			
Sand			495	582			
Sand & Shale			582	925			
Sand			925	1397			
Shale			1397	1440			
Sand			1440	1510			
Shale			1510	1518			
Lime			1518	1657			
Injun			1657	1700			
Sand & Shale			1700	1805	T. D.		

(over)



WELL RECORD, FORM 00-10, MUST BE SUBMITTED TO OBTAIN RELEASE OF BOND.

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JUL 30 1971-CEN

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS WELLS DIVISION

OIL & GAS DIVISION  
DEPT. OF MINES

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

To THE DEPARTMENT OF MINES,  
Charleston, W. Va.

Not Operated

COAL OPERATOR OR COAL OWNER

ADDRESS

COAL OPERATOR OR COAL OWNER

ADDRESS

United Fuel Gas Company

OWNER OF MINERAL RIGHTS

Charleston, West Virginia

ADDRESS

Pilot Oil & Gas Corporation

NAME OF WELL OPERATOR

1404 Commerce Square

Charleston, West Virginia

COMPLETE ADDRESS

July 30, 19 71

PROPOSED LOCATION

Walton District

Roane County

Well No. Southeastern - Potato Run #2

United Fuel Gas Company Farm

Elevation 757.95 Acres 7000

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated

May 13, 1971

made by United Fuel Gas Company, to

J. L. Trittippo, Inc., then to Pilot Oil & Gas and recorded on the 19th day of December, 1905, in the office of the County Clerk for said County in

Book 42, page 245

The enclosed plat was prepared by a competent engineer and shows the proposed location of a well to be drilled for oil and gas by the undersigned well operator on the farm and in the Magisterial District and County above named, determined by survey and courses and distances from two permanent points, or land marks.

The undersigned well operator is informed and believes there are no coal operators operating beds of coal beneath said farm or tract of land on which said well is located, or within 500 feet of the boundaries of the same, who have mapped their workings and filed their maps as required by law excepting the coal operators or coal owners (if any) above named as addressees.

The above named coal operators or coal owners (if any) are notified that any objections they may desire to make to such proposed location, or which they are required to make by Section 3 of said Code, if the drilling of a well at said proposed location will cause a dangerous condition in or about their respective coal mines, must be received by, or filed with the Department of Mines within ten\* days from the receipt of a copy of this notice and accompanying plat by said Department. Said coal operators are further notified that forms for use in making such objections will be furnished to them by the Department of Mines promptly on request and that all such objections must set forth as definitely as is reasonably possible the ground or grounds on which such objections are based and indicate the direction and distance the proposed location should be moved to overcome same.

(The next paragraph is to be completed only in Department's copy.)

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

WELL DRILLING PERMIT

All provisions being in accordance with Chapter 22 of the W. Va. Code, the location is hereby approved for drilling.

This permit shall expire if drilling is not commenced by November 30, 1971

Deputy Director - Oil & Gas Division

Very truly yours,

(Sign Name)

[Signature]

WELL OPERATOR

1404 Commerce Square

STREET

Charleston,

CITY OR TOWN

West Virginia 25301

STATE

Address of Well Operator }

\*Section 3 . . . If no such objections be filed or be found by the department of mines, within said period of ten days from the receipt of said notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a drilling permit reciting the filing of such plat, that no objections have been made by the coal operators to the location, or found thereto by the department, and that the same is approved and the well operator authorized to proceed to drill at said location.

ROA-1937

PERMIT NUMBER

BOND DRILL



**THIS IS AN ESTIMATE ONLY**  
 ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

PROPOSED WORK ORDER TO:  DRILL  DEEPEN  FRACTURE  WELL

WELL OPERATOR NAME Pilot Oil & Gas Corporation RESPONSIBLE AGENT: NAME D. C. Malcolm, Inc.

ADDRESS 1404 Commerce Sq., Charleston, W. Va. ADDRESS 1404 Commerce Sq., Charleston, W. Va.

TELEPHONE 343-9383 TELEPHONE 343-9593

DRILLING CONTRACTOR: (IF KNOWN) NAME F.W.A. LAND OWNER: NAME United Fuel Gas Company

TELEPHONE \_\_\_\_\_ TELEPHONE 346-0951

ESTIMATED DEPTH OF COMPLETED WELL: 1800' ROTARY

PROPOSED GEOLOGICAL FORMATION: Injun CABLE TOOLS \_\_\_\_\_

TYPE OF WELL: OIL \_\_\_\_\_ GAS  COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 TYPE WASTE \_\_\_\_\_ RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING	CEMENT TO BE USED	FOR DRILLING	TO BE LEFT
20	_____	_____	_____
16	_____	_____	_____
13 3/8	_____	_____	_____
11 3/4	_____	_____	_____
10 3/4	_____	_____	_____
9 5/8	_____	_____	_____
8 5/8	<u>To Surface</u>	<u>150'</u>	<u>150'</u>
7	_____	_____	_____
5 1/2	_____	_____	_____
4 1/2	<u>100 SH</u>	<u>1800'</u>	<u>1800'</u>
3 1/2	_____	_____	_____
2 3/8	_____	_____	_____
LINERS USED	_____	_____	_____

APPROXIMATE DEPTHS OF EXPECTED POTABLE WATER STRATA \_\_\_\_\_  
 APPROXIMATE DEPTHS OF EXPECTED WORKABLE COAL SEAMS? \_\_\_\_\_  
 IS COAL BEING MINED IN THE AREA? \_\_\_\_\_

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, owner or operator of the coal under this lease have examined and placed on our mine maps this proposed well location.  
 We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

\_\_\_\_\_  
 For Coal Company

\_\_\_\_\_  
 Official Title \_\_\_\_\_

1968 0908

87-01937A

WW-4A  
Revised 6-07

1) Date: 12/8/17  
2) Operator's Well Number  
Potato Run #2  
3) API Well No.: 47 - 087 - 01937

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>Natural Steam Energy, Inc.</u> ✓	Name <u>N/A</u>
Address <u>P.O. Box 723</u>	Address _____
<u>Ripley, WV 25271</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>None</u>
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector <u>Joe Taylor</u>	(c) Coal Lessee with Declaration
Address <u>1478 Claylick Rd.</u>	Name <u>None</u>
<u>Ripley, WV 25271</u>	Address _____
Telephone <u>304-380-7469</u>	_____

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

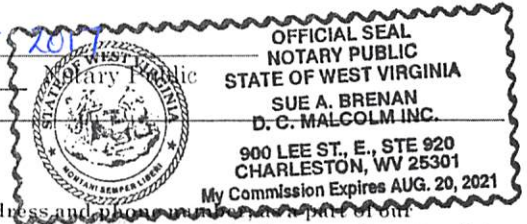
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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 Steve Duckworth Well Service  
 By: Steve Duckworth  
 Its: President  
 Address 181 Sugarcamp Rd.  
Gassaway, WV 26624  
 Telephone 304-343-7142

Subscribed and sworn before me this 20th day of December 2017  
Sue A. Brennan  
 My Commission Expires Aug 20, 2021



Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, for the normal course of 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 [depprivacyoffier@wv.gov](mailto:depprivacyoffier@wv.gov).

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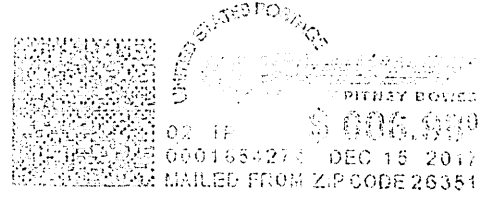


87-01937A

**SL** SMITH LAND SURVEYIN  
P.O. BOX 150, GLENVILLE, WV 26351



7017 0530 0000 2684 0616



Natural Steam Energy, Inc.  
P.O. Box 723  
Ripley, WV 25271



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Environmental Protection  
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**SURFACE OWNER WAIVER**

Operator's Well  
Number

Potato Run #2

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A**

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.  
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

**Comments must be in writing.** Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON  
ETC.

FOR EXECUTION BY A CORPORATION,

_____	Date _____	Name _____	_____
Signature		By <u>NATURAL STEAM ENERGY</u>	
		Its <u>[Signature]</u>	Date <u>12-22-17</u>
		Signature _____	Date _____

87-01937P

WW-9  
(5/16)

API Number 47 - 087 01937  
Operator's Well No. Potato Run #2

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

Operator Name Steve Duckworth Well Service OP Code 307179

Watershed (HUC 10) Potato Run Quadrangle Clio 7.5'

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

*ALL WELL EFFLUENT MUST BE DISPOSED  
OFF-SITE, PROPERLY.*

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 \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain AST will be used on site and removed after P&A work is complete)

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. No Drilling, P&A

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? N/A

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) N/A

-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 Steve Duckworth

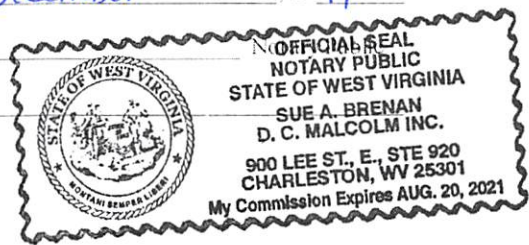
Company Official (Typed Name) Steve Duckworth

Company Official Title President

Subscribed and sworn before me this 20th day of December, 2017

*Sue A. Brenan*

My commission expires Aug. 20, 2021



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Office of Oil and Gas

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WV Department of  
Environmental Protection

Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ Prevegetation pH 6.6

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 1/3 Ton lbs/acre

Mulch Hay 2 Tons/acre

**Seed Mixtures**

**Temporary**

**Permanent**

Seed Type	lbs/acre
KY-31	40
Alsike Clover	5
Annual Rye	15

Seed Type	lbs/acre
Orchard Grass	15
Alsike Clover	5

**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: \_\_\_\_\_ Date: \_\_\_\_\_

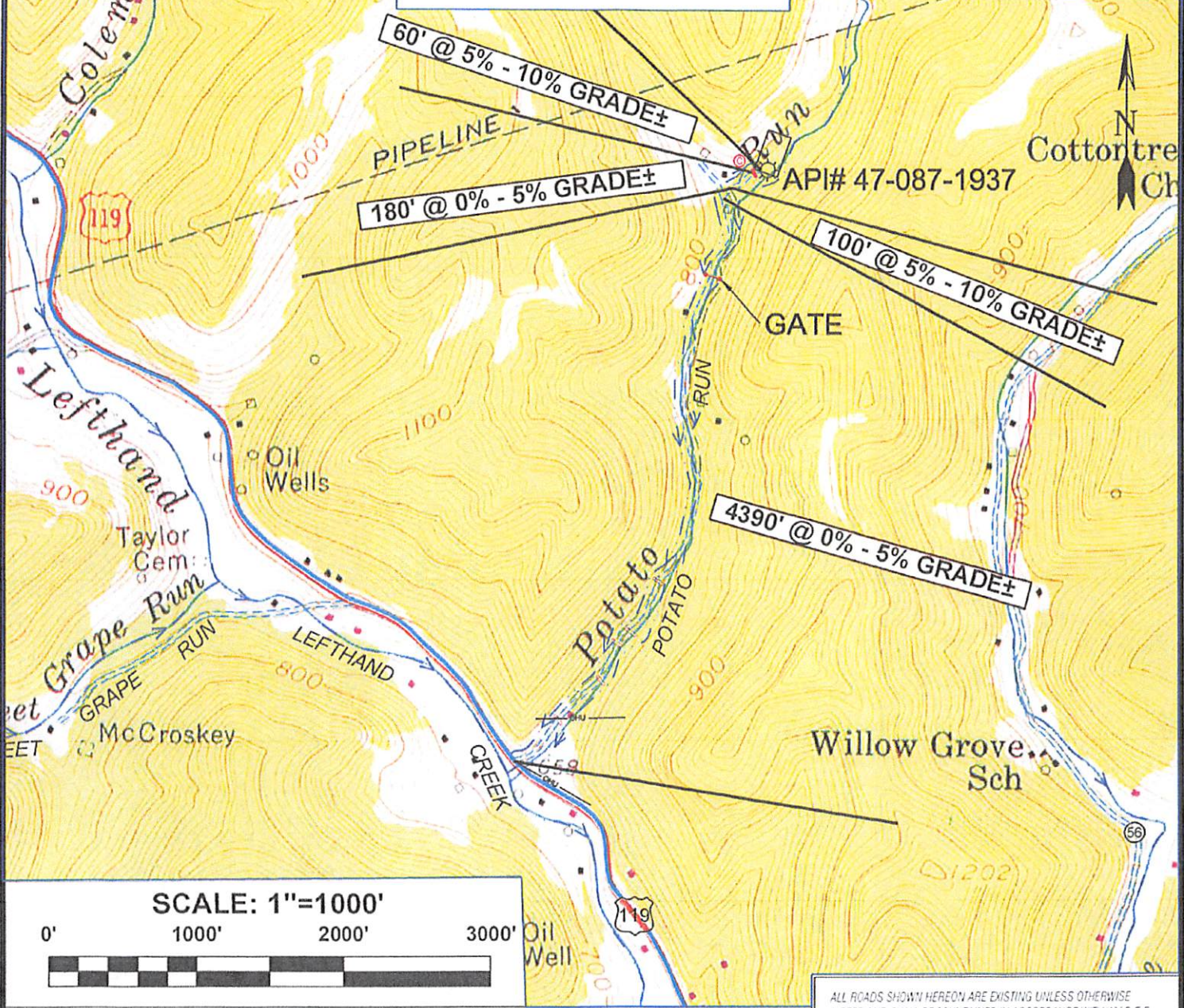
Field Reviewed? ( ) Yes ( ) No

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Office of Oil and Gas

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WW Department of  
Environmental Protection  
02/09/2018

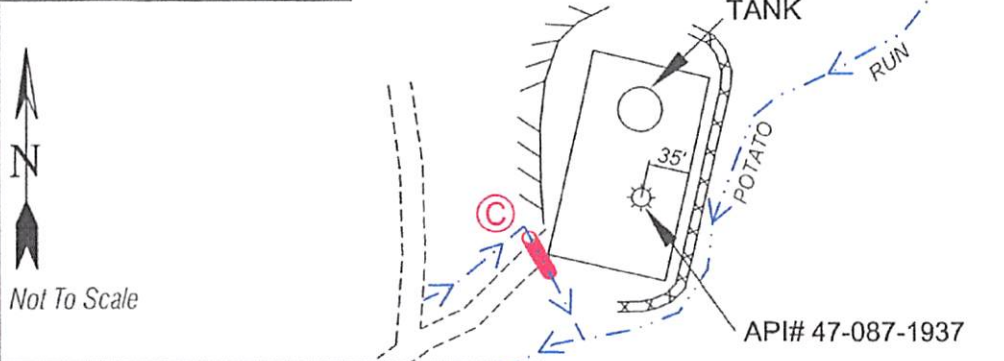




SCALE: 1"=1000'



Detail Sketch for API# 47-087-1937



Not To Scale

ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRIES AT COUNTY STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

- EXISTING CULVERT
- PROPOSED CULVERT 15' MIN UNLESS OTHERWISE NOTED
- RECEIVED BY OPERATOR
- CROSSING
- APPROXIMATE LIMITS OF DISTURBANCE



DRAWN BY	FILE NO.	DATE	CADD FILE:
MGF	8759	12-13-17	8759REC.dwg

TOPO SECTIONS OF CLIO 7.5' TOPO QUADRANGLE

DEC 21 2017



