



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

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

April 25, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4100142, issued to EQT PRODUCTION COMPANY, 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 all 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: WV608138 (GOULD 8138)
Farm Name: HENDERSON, WILLIAM J., ET AI
API Well Number: 47-4100142
Permit Type: Plugging
Date Issued: 04/25/2016

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

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.
4. This well is under a consent order and must be plugged under the terms of that agreement.

Form WW-4 (B)
Permit Copy
(Rev 2/01)

Date: March 8, 2016
Operator's Well _____
Well No. 608138 (Gould #1 8138)
API Well No.: 47 041 - 00142

*CK # 20422
400.00*

**STATE OF WEST VIRGINIA
DIVISION 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) Elevation: 1305 ft. Watershed: Hackers Creek
Location: Hackers Creek County: Lewis Quadrangle: Berlin 7.5'
District: _____

6) Well Operator EQT Production Company
120 Professional Place
Address: Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

8) Oil & Gas Barry Stollings
Name: 28 Conifer Drive
Address: Bridgeport, WV 26330

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

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

OFFICE USE ONLY

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

Work order approved by inspector _____ Date _____

**Received
Office of Oil & Gas
MAR 14 2016**

Form WW-4 (B)
Permit Copy
Rev 2/01)

Date: March 8, 2016
Operator's Well
Well No. 608138 (Gould #1 8138)
API Well No.: 47 041 - 00142

ck # 20422

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

Well Type: Oil Gas X Liquid Injection Waste Disposal:
If Gas, Production X Or Underground storage Deep Shallow X

i) Elevation: 1305 ft. Watershed: Hackers Creek
Location: Hackers Creek County: Lewis Quadrangle: Berlin 7.5'
District:

ii) Well Operator EQT Production Company
120 Professional Place
Address: Bridgeport, WV 26330

7) Designated Agent: Rex C. Ray
Address: 120 Professional Place
Bridgeport, WV 26330

iii) Oil & Gas Barry Stollings
Name: 28 Conifer Drive
Address: Bridgeport, WV 26330

9) Plugging Contractor:
Name: HydroCarbon Well Service
Address: PO BOX 995
Buckhannon, WV 26201

0) Work Order: The work order for the manner of plugging this well is as follows:
See Attachment for details and procedures.

RECEIVED
Office of Oil and Gas

APR 6 2016

WV Department of
Environmental Protection

OFFICE USE ONLY

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

Work order approved by inspector Bryan Harris Date 3-28-16

PLUGGING PROGNOSIS

Gould, W.G. #8138(608138)
Lewis. Co. WV
District, Hackers Creek
API # 47-041-00142
BY: R.Green
DATE: 02/18/15

CURRENT STATUS:

10" @ 336'
8 1/4" @ 1259'
6 5/8" @ 2745' (on packer @ 2743')
TD @ 4729'
Elevation @ 1409'

Fresh Water @ none reported
Salt Water @ None reported
Coal @ 130' & 710'
Gas Shows @ 2124' & 4698'
Oil Shows @ None reported

1. Notify State Inspector, Barry Stollings, 304-552-4194, 24 hrs. Prior to commencing operations.
2. TIH to 4698', set 100' C1A cement plug, 4698 to 4598' (gas @ 4694, Benson Sand).
3. TOOH tbg to 4598', gel hole 4598' to 4300'.
4. TOOH tbg to 4300', set 100' C1A cement plug 4300' to 4200', (safety plug).
5. TOOH tbg to 4200', gel hole 4200' to 2800'
6. TOOH tbg to 2800', set 150' C1A cement plug, 2800' to 2650', (7" casing seat & packer).
7. TOOH tbg to 2650', gel hole 2650' to 2500', TOOH tbg.
8. Free point 6 5/8" casing, cut casing @ free point, (est @ 2450'), TOOH casing.
9. Set 100' C1A cement plug, 50' in /out of casing cut, perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
10. TOOH tbg to 2400', gel hole 2400' to 2125'.
11. TOOH tbg to 2125', set 100' C1A cement plug 2125' to 2025', (gas @ 2124', Berea).
12. TOOH tbg to 2025', gel hole 2025' to 1460'.
13. TOOH tbg to 1460', set 260' C1A cement plug 1460' to 1200', (8 1/4" casing seat, elevation).
14. TOOH tbg to 1200', gel hole 1200' to 1050', TOOH tbg.
15. Free point 8 1/4" casing, cut casing @ free point (est @ 1000'), TOOH casing, perforate all freshwater, saltwater, coal, oil and gas shows below cut. Do not omit any plugs.
16. TOOH tbg to 950', gel hole 950' to 725'.
17. TOOH tbg to 725', set 100' C1A cement plug, 725' to 625', (Coal @ 710').
18. TOOH tbg to 625', gel hole 625' to 400'.
- ★ 19. TOOH tbg to 400', set 400' C1A cement plug 400' to surface, (10" casing seat, coal @ 130')
20. Erect monument with API#.
21. Reclaim road, location to WV-DEP specifications.

WOC 4 HAS 3/4 CHECK TOC, ADD SEANT IF NEEDED.

★ MUST TRY TO PULL 10", IF NOT POSSIBLE, PERFORATE CASING TO ALLOW CEMENT COVERAGE OF COAL @ 130'.

JNM

Received
Office of Oil & Gas

MAR 14 2016

47-04100142
608138

WEST VIRGINIA DEPARTMENT OF MINES
OIL & GAS DIVISION
WELL RECORD

Lewis Co
Gould 8138

411001427

Permit No. Low 142
Weston Quad.
Company
Address
Farm
Location
Well No.
District
Surface
Mineral
Commenced
Completed
Date shot

Open flow
Volume
Rock Pressure
Water

Pittsburgh & W.Va. Gas Company
Clarksburg, W.Va.
W.G. Gould et ux Acres 67
Weston S/E 3-4
8138 Elev. 1409 VA
Hackers Crook Lewis County
Anno J. Gould, R.D. #4, Weston, W.Va.
Same
Oct. 8, 1947
Jan. 6, 1948
1-1-1948 Depth 4694 to 4712
with 130 qts. nitro glycerine
17/10ths M in 1 1/2" FM
192,000
920 lbs. 24 hrs.
1076' 5 blr. hr.

Gas Well
CASING & TUBING

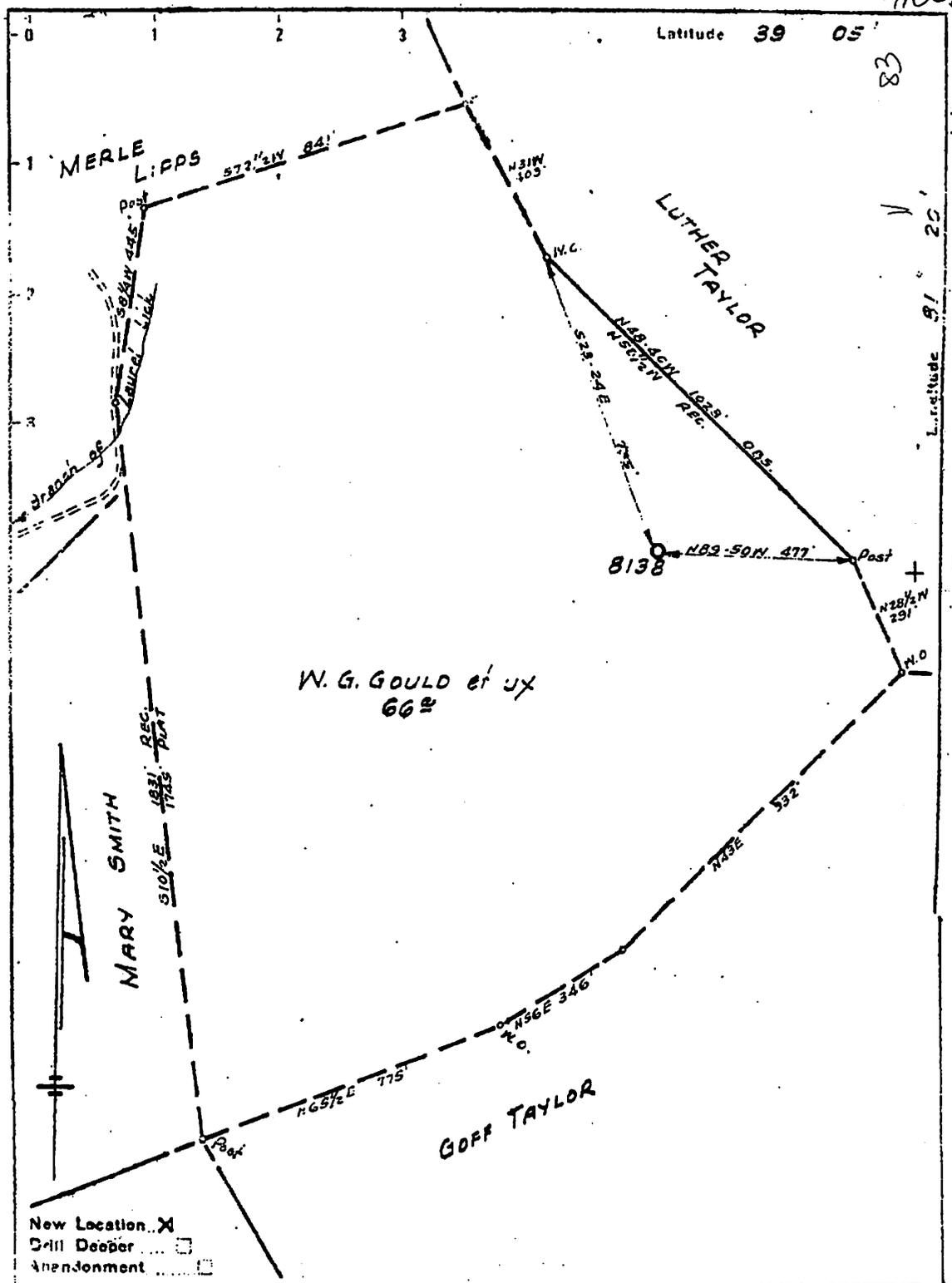
10 336 336
8 1/2 1259 1259
6 5/8 2745 2745
B.H. Packer
Size 8 1/2 x 6 5/8
Depth 2743

Coal at 130' 48"
710' 48"

elev 1409'

Clay R	S	0	30	Slate & Shells Gr	S&H	3458	3640
Slate & Shells S&H		30	130	Sand Gr	H	3640	3685
Coal Blk	S	130	134	Lime Gr	H	3685	4040
Slate & Shells S&H		134	263	Slate & Shells Gr	S&H	4040	4321
Red Rock	S	263	320	Gritty Lime Gr	H	4321	4365
Slate & Shells Wh S&H		320	448	Slate & Shells Gr	S&H	4365	4694
Lime Dk	H&Broken	448	570	Benson Sand Br	H	4694	4712
Red Rock	S	570	590	Gritty Lime Blk	H	4712	4729
Lime Gr	H	590	605	Total Depth			4729
Slate & Shells Gr S&H		605	710				
Coal Blk	S	710	714	Sh. gas 2124'			
Slate & Shells Gr S&H		714	735	Gas 4698 24/10 W 1 1/2"			
L. Dunkard Wh	MH	735	790	Gas 4702-4707 30/10 W 1 1/2"			
Slate & Shells Gr S&H		790	867				
B. Dunkard DkGr	H	867	889				
Lime Dk	Broken	889	935				
Slate & Shells Blk S&H		935	1001				
Homewood Sand Wh	H	1001	1165				
Slate & Shells Blk S&H		1165	1212				
Lime Dk	H	1212	1230				
1st Salt Sand Wh	H	1230	1249				
Lime Wh	H	1249	1285				
2nd Salt Sand Gr	H	1285	1327				
Slate Blk	S	1327	1350				
Gritty Lime Wh	H	1350	1450				
3rd Salt Sand Gr	H	1450	1510				
Slate Blk S		1510	1513				
Lime Gr	H	1513	1571				
Slate Wh	S	1571	1585				
Red Rock Shells	S&H	1585	1750				
Slate & Shells Wh S&H		1750	1785				
Little Lime Wh	H	1785	1800				
Slate & Shells Gr S&H		1800	1840				
Big Lime Gr	H	1840	1909				
Big Injun Gr	H	1909	2028				
Lime Dr. Gray Broken		2028	2121				
Berea Gr	H	2121	2217				
Lime Gr	Broken	2217	2280				
50' Sand Gr	H	2280	2330				
Lime Gr	H	2330	2400				
Slate Gr	S	2400	2406				
Lime Red	H	2406	2510				
Slate & Shells Gr S&H		2510	2619				
5th Sand Gr	H	2619	2631				
Slate Gr	S	2631	2641				
Lime Gr	H	2641	2649				
5 "A" Sand Gr	H	2649	2668				
Slate & Shells Wh S&H		2668	2740				
Gritty Lime Bl Gr	H	2740	3040				
Slate & Shells Gr S&H		3040	3120				
Gritty Lime Bl Gr	H	3120	3400				
Slate & Shells Wh S&H		3400	3430				
Lime Gr	H	3430	3458				

Received
Office of Oil & Gas
MAR 14 2016



New Location X
 Drill Deeper
 Abandonment

Company Pittsburgh & W.Va. Gas Co.
 Address Clarksburg, W.Va.
 Farm W. G. GOULD et ux
 Tract _____ Acres 67 Lease No. 23172
 Well (Farm) No. 1 Serial No. 8138
 Elevation (Spirit Level) 1409' V.A.
 Quadrangle Weston S.E. 34
 County Lewis District Hackers Creek
 Engineer James D. Jeffries
 Engineer's Registration No. 1684
 File No. DV-26-P-69 Drawing No. _____
 Date Aug. 26, 1947 Scale 1" = 300'

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

WELL LOCATION MAP
 FILE NO. LEW-142 MAR 14 2016

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing

Received
 Office of Oil & Gas

ALB

WW-4-A
Revised 6/07

1) Date: March 8, 2016
2) Operator's Well Number
608138 (Gould #1 8138)
3) API Well No.: 47 041 - 00142
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
NOTICE AND APPLICATION TO PLUG AND ABANDON WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator:
(a) Name <u>William J. Henderson</u>	Name <u>None</u>
Address <u>5050 Hackers Creek Road</u>	Address _____
<u>Weston, WV 26542</u>	_____
(b) Name <u>James W. and Helen S. Henderson</u>	(b) Coal Owner(s) with Declaration
Address <u>478 Universe Drive</u>	Name <u>William J. Henderson</u>
<u>Martinsburg, WV 25404</u>	Address <u>5050 Hackers Creek Road</u>
_____	<u>Weston, WV 26542</u>
(c) Name _____	Name <u>James W. and Helen S. Henderson</u>
Address _____	Address <u>478 Universe Drive</u>
_____	<u>Martinsburg, WV 25404</u>
6) Inspector <u>Barry Stollings</u>	(c) Coal Lessee with Declaration
Address <u>28 Conifer Drive</u>	Name <u>None</u>
<u>Bridgeport, WV 26330</u>	Address _____
Telephone <u>(304) 552-4194</u>	_____

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

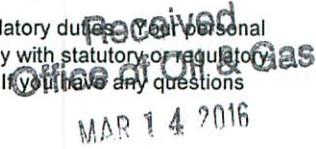
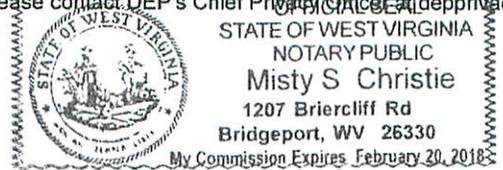
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have 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 Division 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:	<u>EQT Production Company</u>
By:	<u>Victoria J. Roark</u>
Its:	<u>Permitting Supervisor</u>
Address:	<u>PO Box 280</u>
	<u>Bridgeport, WV 26330</u>
Telephone:	<u>(304) 848-0076</u>

Subscribed and sworn before me this 8th day of March, 2016
Misty S. Christie Notary Public
My Commission Expires: 2/20/18

The Office of Oil & Gas processes your personal information, such as name, address and phone number, as 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 privacyofficer@wv.gov.



**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name: EQT PRODUCTION COMPANY OP ID: _____
Watershed: Hackers Creek Quadrangle: Berlin 7.5'
Elevation: 1305 ft. County: Lewis District: Hackers Creek

Description of anticipated Pit Waste: Formation Fluids

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ___ No X
Will synthetic liner be used in the pit? Yes Is so, what ml.? 20 10 ml

Proposed Disposal Method for Treated Pit Wastes:
X Land Application
____ Underground Injection - UIC Permit Number _____
____ Reuse (at API Number) _____
____ Offsite Disposal Permit #. _____
____ Other: Explain _____

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. _____
If oil based, what type? Synthetic, petroleum, etc. _____
Additives to be used? _____

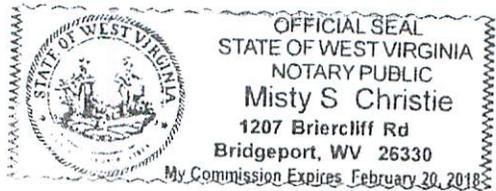
Will closed loop system be used? _____
Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____
If left in pit and plan to solidify what medium will be used? Cement, Lime, sawdust _____
Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms 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 *Victoria Roark*
Company Official (Typed or Printed) Victoria Roark
Company Official Title Permitting Supervisor-WV

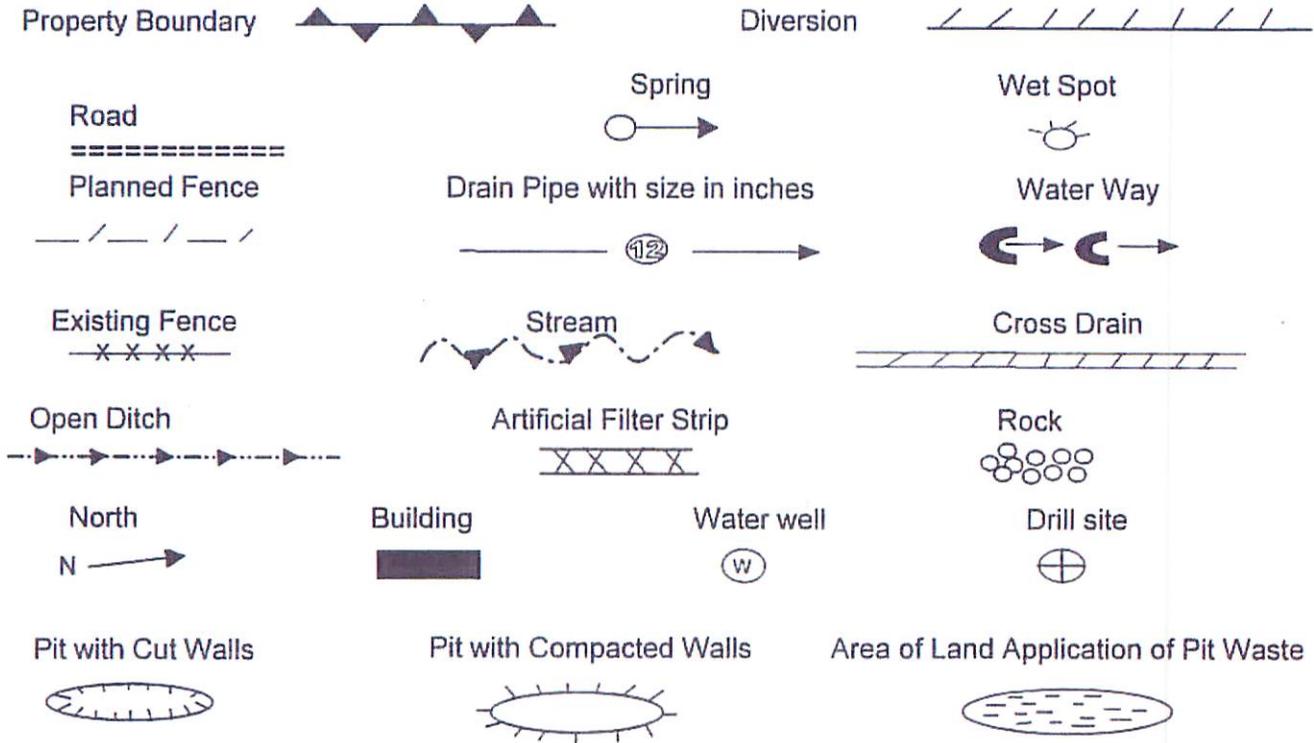
Subscribed and sworn before me this 9th day of March, 2016
Misty S. Christie Notary Public
My Commission Expires 2/20/18

2016 Received
Office of Oil & Gas
MAR 14 2016



OPERATOR'S WELL NO.:
608138 (Gould #1 8138)

LEGEND



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

SEED MIXTURES

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

RECEIVED
 Office of Oil and Gas

ATTACH:
 Drawing(s) of road, location, pit and proposed area for land application.
 Photocopies section of involved 7.5' topographic sheet.

APR 6 2016

Plan approved by: Bryan Harris

WV Department of Environmental Protection

Comments: _____

Title: inspector Date: 3-28-16
 Field Reviewed? Yes No

41001429

Topo Quad: Berlin 7.5'

Scale: 1" = 2000'

County: Lewis

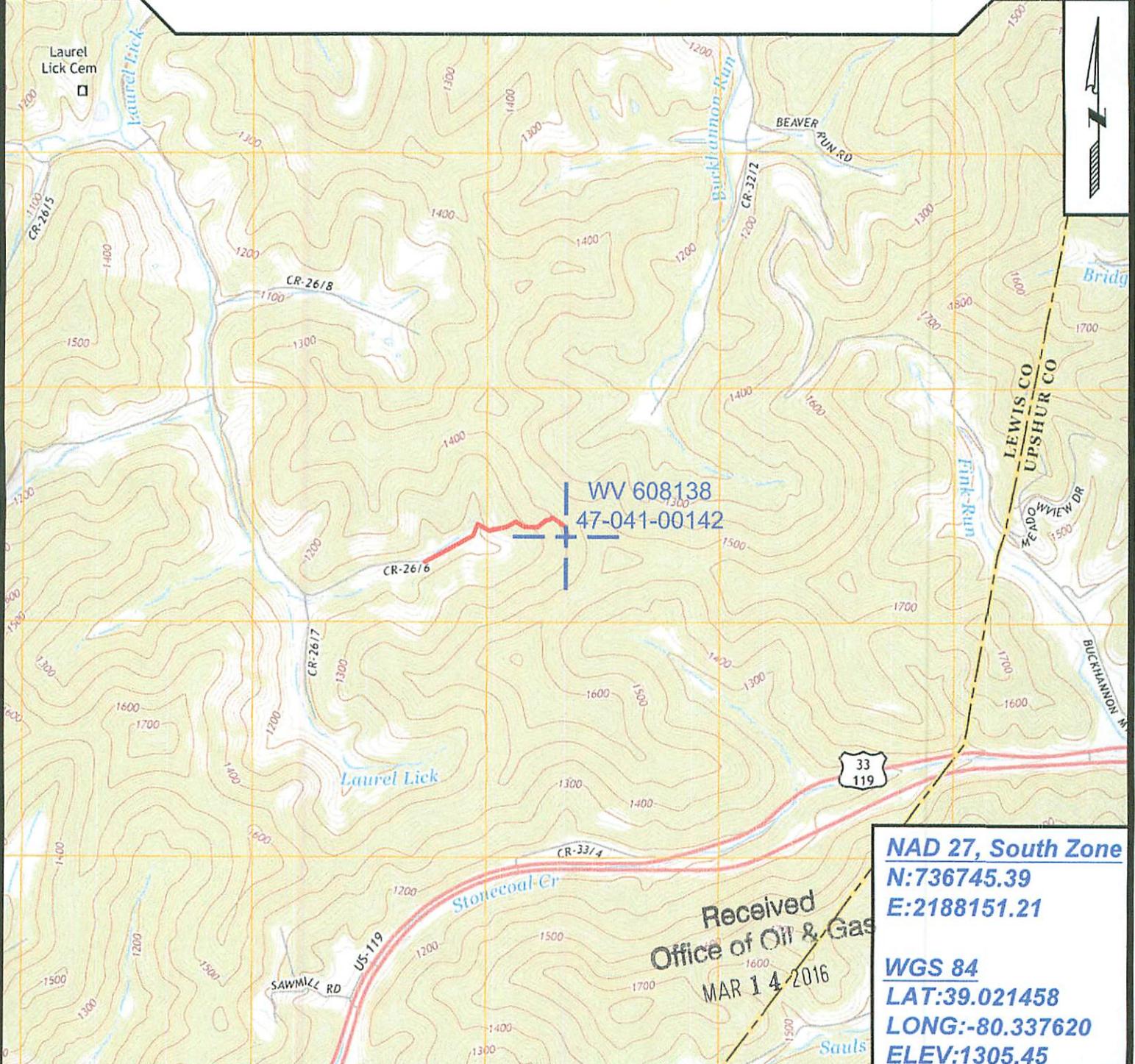
Date: February 25, 2016

District: Hackers Creek

Project No: 73-12-00-08

47-041-00142 WV 608138 (Gould #1 8138)

Topo



WV 608138
47-041-00142

NAD 27, South Zone
N:736745.39
E:2188151.21

WGS 84
LAT:39.021458
LONG:-80.337620
ELEV:1305.45

Received
 Office of Oil & Gas
 MAR 14 2016



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 P.O. Box 280
 Bridgeport, WV 26330

WW-7
8-30-06



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

API: 47-041-00142 WELL NO.: WV 608138 (Gould #1 8138)

FARM NAME: William J. Henderson, et al.

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Lewis DISTRICT: Hackers Creek

QUADRANGLE: Berlin 7.5'

SURFACE OWNER: William J. Henderson

ROYALTY OWNER: Helen Sue Gould Henderson, et al.

UTM GPS NORTHING: 4319366

UTM GPS EASTING: 557340 GPS ELEVATION: 398 m (1305 ft)

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:
Survey grade GPS : Post Processed Differential
Real-Time Differential
Mapping Grade GPS X: Post Processed Differential X
Real-Time Differential

Received
Office of Oil & Gas
MAR 14 2016

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.

Stacy Olson
Signature

PS #2180
Title

2/26/16
Date



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
 LEASE NAME AND WELL No. Gould #1 8138 - WV 608138 - API No. 47-041-00142

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 608138.

Received
 Office of Oil & Gas
 MAR 14 2016

BIRCH RIVER OFFICE

237 Birch River Road
 Birch River, WV 26610
phone: 304-649-8606
fax: 304-649-8608

BRIDGEPORT OFFICE

172 Thompson Drive
 Bridgeport, WV 26330
phone: 304-848-5035
fax: 304-848-5037

ALUM CREEK OFFICE

P.O. Box 108 • 1413 Childress Rd
 Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948

MARTINSBURG OFFICE

25 Lights Addition Drive
 Martinsburg, WV 25404
phone: 304-901-2162
fax: 304-901-2182

4100142 P

Topo Quad: Berlin 7.5'

Scale: 1" = 2000'

County: Lewis

Date: February 25, 2016

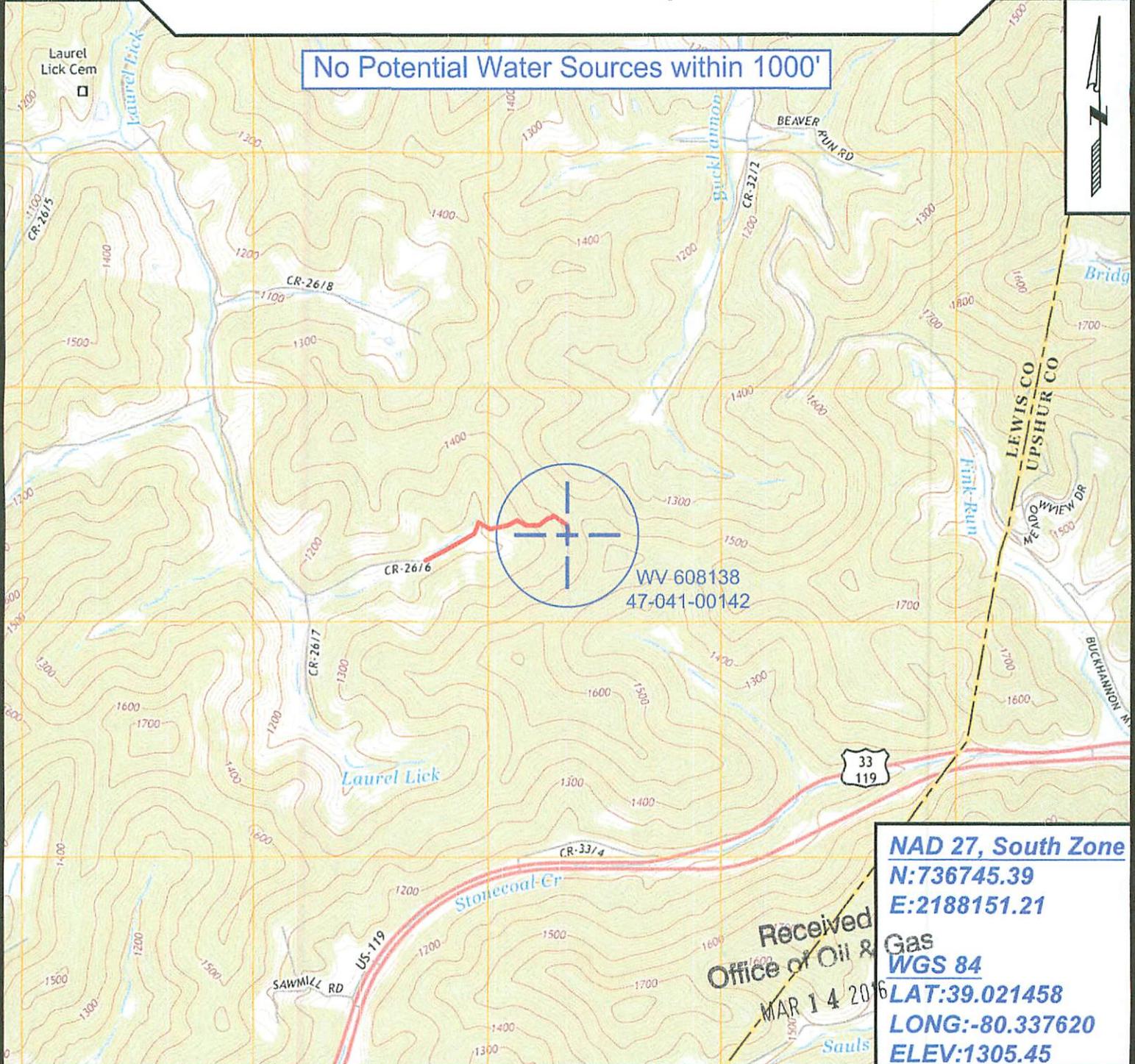
District: Hackers Creek

Project No: 73-12-00-08

Water

47-041-00142 WV 608138 (Gould #1 8138)

No Potential Water Sources within 1000'



NAD 27, South Zone
N:736745.39
E:2188151.21
WGS 84
LAT:39.021458
LONG:-80.337620
ELEV:1305.45

Received
 Office of Oil & Gas
 MAR 14 2016



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 237 Birch River Road
 Birch River, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

PREPARED FOR:
EQT Production Company
 P.O. Box 280
 Bridgeport, WV 26330