



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

June 16, 2016

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-4101884, 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.

A blue ink signature of James Martin, Chief, written over a white background.

James Martin
Chief

Operator's Well No: 8250
Farm Name: HULL, MARY A.
API Well Number: 47-4101884
Permit Type: Plugging
Date Issued: 06/16/2016

Promoting a healthy environment.

06/17/2016

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: May 10, 2016
Operator's Well
Well No. 608250 (Mary A. Hull #1 8250)
API Well No.: 47 041 - 01884

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

CIC 20463
100⁰⁰

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: 1157 ft. Watershed: Ward Run
Location: Collins Settlement County: Lewis Quadrangle: Roanoke 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.

RECEIVED
OFFICE OF OIL AND GAS
JUN 07 2016

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

Barry Stollings Date 6-1-16

PLUGGING PROGNOSIS – Weston

Hull, Mary #8250 (608250)

Lewis Co., WV

API # 47-041-01884

Quad: Collins Settlement

BY: Craig Duckworth

DATE: 5/09/16

CURRENT STATUS:

13" csg @ 13'

8 5/8" csg @ 963'

4 1/2" tbg @ 4504'

TD @ 4514'**Fresh Water @ 275'****Gas Shows @ None reported****Oil Shows @ None reported****Stimulation: Benson @ 4390'-4410'****Elevation: 1158'****Salt Water @ None reported****Coal @ None reported**

1. Notify State Inspector, **Barry Stollings 304-552-4194**, 24 hrs. Prior to commencing operations.
2. TIH w/ tbg @ 4500'; Set 200' C1A Cement Plug @ 4500' to 4300'
3. TOOH w/ tbg @ 4300'; gel hole @ 4300' to 3200'
4. TOOH w/ tbg @ 3200'; Set 200' C1A Cement Plug @ 3200' to 3000'
5. TOOH w/ tbg @ 3000'; gel hole @ 3000' to 2000'
6. TOOH w/tbg & free point 4 1/2" , cut @ free point TOOH w/4 1/2"
7. TIH w/ tbg @ 2000'; Set 200' C1A Cement Plug @ 2000' to 1800'(4 1/2" csg free point)
8. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 4 1/2" cut. Do not omit any plugs
9. TOOH w/ tbg @ 1800'; gel hole @ 1800' to 1200'
10. TOOH w/ tbg @ 1200'; Set 100 C1A Cement Plug @ 1200' to 1100'(Elevation @ 1158')
11. TOOH w/ tbg @ 1100'; gel hole @ 1100' to 1000'
12. TOOH w/ tbg @ 1000'; Set 200' C1A Cement Plug @ 1000' to 800'(8 5/8" csg @ 963')
13. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 8 5/8" cut. Do not omit any plugs
14. TOOH w/ tbg @ 800'; gel hole @ 800' to 300'.
15. TOOH w/ tbg @ 200'; Set 300' C1A Cement Plug @ 300' to Surface (FW @ 275' & 10" @ 14')
16. Top off as needed
17. Set Monument to WV-DEP Specifications
18. Reclaim Location & Road to WV-DEP Specifications

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Office of Oil and Gas
MAY 17 2016
WV Department of
Environmental Protection

06/17/2016



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division
WELL RECORD

RECEIVED
JUN 7 1973

OIL & GAS DIV
DEPT. OF MINES

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Quadrangle Crawford N. W.

Permit No. LEW 1884

Company Union Drilling, Inc.
Address P. O. Box 347, Buckhannon, W. VA.
Farm Mary Hull Acres 108
Location (waters) Sand Fork
Well No. (1) 290-E Elev. 1158
District Collins Settlement County _____
The surface of tract is owned in fee by _____
Mary A. Hull
Address Rt. #2, Roanoke, W. Va. 26423
Mineral rights are owned by _____
Address (SAME)
Drilling Commenced March, 24, 1973
Drilling Completed March, 29, 1973
Initial open flow 29,326 cu. ft. _____ bbls.
Final production 1067,000 ft. per day _____ bbls.
Well open 16 hrs. before test 1440 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10" 13"	14'	14'	
9 5/8			
8 5/8	963'	963'	
7			
5 1/2			
4 1/2	4504'	4504'	
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

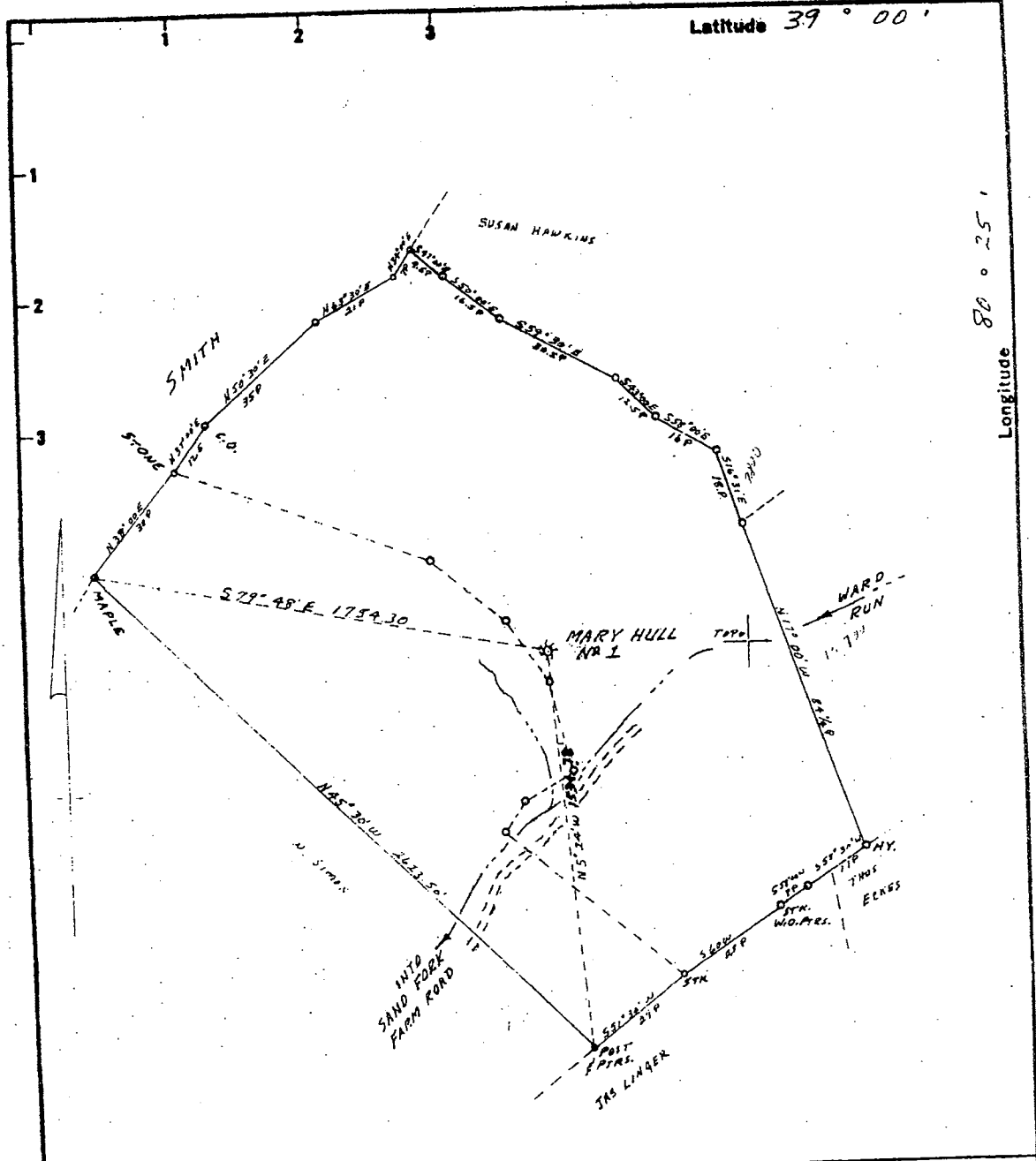
5/31/73 - Dowell - 1 Stage - Benson - 30,072 Gal, Waterfrac - 30,000 Lbs. - Sand

Coal was encountered at None Feet _____ Inches
Fresh water 275' Feet _____ Salt Water _____ Feet _____
Producing Sand Benson Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Clay			0	9		
Sand			9	44		
Red Rock & Sand			44	275		
Sand & Shale			275	605		
Red Rock, Sand & Streaks			605	625		
Sand & Shale			625	839		
Sand			839	965		
Sand & Shale & Streaks			965	1335		
Sand & Shale			1335	1540		
Red Rock & Sand			1540	1640		
Lime & Red Rock			1640	1698		
Big Lime			1698	1787		
Injun Sand			1787	1881		
Sand & Shale			1881	1990		
Sand, Shale & Red Rock			1990	2249		
Sand			2249	2360		
Sand & Shale			2360	3285		
Shale			3285	3975		
Riley Stringers			3975	4180		
Sand & Shale			4180	4390		
Benson Sand			4390	4410		
Shale & Sand			4410	4514		

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Office of Oil and Gas
MAY 17 2016

* Indicates Electric Log tops in the remarks section.



Fracture Before 6/5/29
 New Location
 Drill Deeper
 Redrill
 Abandonment

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by Paragraph 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia. *Paul H. Dean*
 The accuracy of this survey is within the limits and as prescribed in paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.
PROVEN ELEVATION *From the surface 2200' E.M. 12/27/20*

Company UNION DRILLING INC.
 Address Box 347, BUCKHANNON, W. VA.
 Farm MARY A. HULL
 Tract _____ Acres 108 Lease No. 25058
 Well (Farm) No. 1 Serial No. 290-E
 Elevation (Spirit Level) 1158
 Quadrangle CRAWFORD
 County LEWIS District COLLINS SBT.
 Engineer PAUL DEAN
 Engineer's Registration No. 1856
 File No. 136-14-11 Drawing No. 72-46
 Date NOV. 16, 1972 Scale 1" = 305' = 495'

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

WELL LOCATION MAP
 FILE NO. Lew-1884

RECEIVED
 + Denotes location of well on United States Topographic Map at scale of 1" = 62,500' latitude and longitude lines being represented by border lines as shown
 MAY 17 2016

- Denotes one inch spaces on border line or original tracing.
 WV Department of
 Environmental Protection
 06/17/2016

4101884 P

WW-4-A
Revised 6/07

1) Date: May 10, 2016
2) Operator's Well Number
608250 (Mary A. Hull #1 8250)
3) API Well No.: 47 041 - 01884
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:
(a) Name Clara Spray
Address 153 Sammy Run Road
Walkersville, WV 26447

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Barry Stollings
Address 28 Conifer Drive
Bridgeport, WV 26330
Telephone (304) 552-4194

5) (a) Coal Operator:
Name None
Address _____

(b) Coal Owner(s) with Declaration
Name Clara Spray
Address 153 Sammy Run Road
Walkersville, WV 26447

Name _____
Address _____

(c) Coal Lessee with Declaration
Name None
Address _____

Name _____
Address _____

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

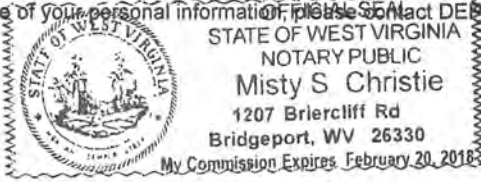
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
 - (2) The plat (surveyor's map) showing the well location on Form WW-6.
- The reason you received these documents is that you have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

Subscribed and sworn before me this 10th day of May, 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 DEPR's Chief Privacy Officer at depprivacyofficer@wv.gov.



06/17/2016

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: Ward Run Quadrangle: Roanoke 7.5'
Elevation: 1157 ft. County: Lewis District: Collins Settlement

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.? 10 ml 20 ml minimum

Proposed Disposal Method for Treated Pit Wastes:
 Land Application
 Underground Injection - UIC Permit Number _____
 Reuse (at API Number) - Various _____
 Offsite Disposal Permit #. see attached _____
 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? _____

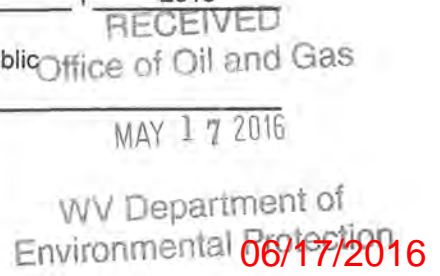
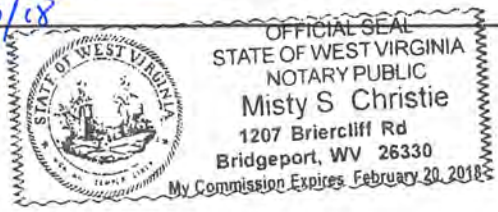
Will closed loop system be used? _____
Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. _____
If left in pit and plan to solidify what medium will be used? Cement, Lime, sawdust _____
Landfill or offsite name/permit number? _____

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 [Signature]
Company Official (Typed or Printed) Victoria Roark
Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 12th day of May, 2016

[Signature] Notary Public
My Commission Expires 2/20/18



41018847

EQT Production Water plan
Offsite disposals

Waste Management - Meadowfill Landfill

Rt. 2, Box 68 Dawson Drive
Bridgeport, WV 26330
304-326-6027
Permit #SWF-1032-98
Approval #100785WV

Waste Management - Northwestern Landfill

512 E. Dry Road
Parkersburg, WV 26104
304-428-0602
Permit #SWF-1025 WV-0109400
Approval #100833WV

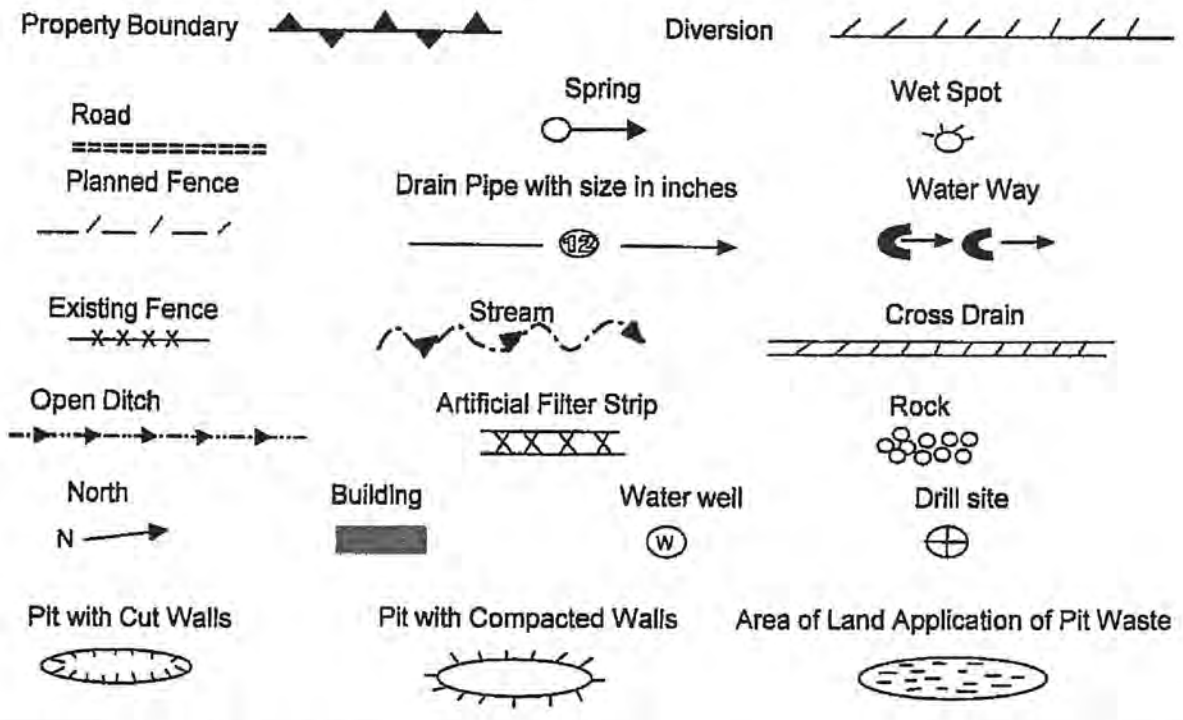
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WV Department of
Environmental Protection
06/17/2016

OPERATOR'S WELL NO.:
608250 (Mary A. Hull #1 8250)

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		

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 OFFICE OF OIL AND GAS

JUN 07 2016

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

Plan approved by: Bryan [Signature]

Comments: _____

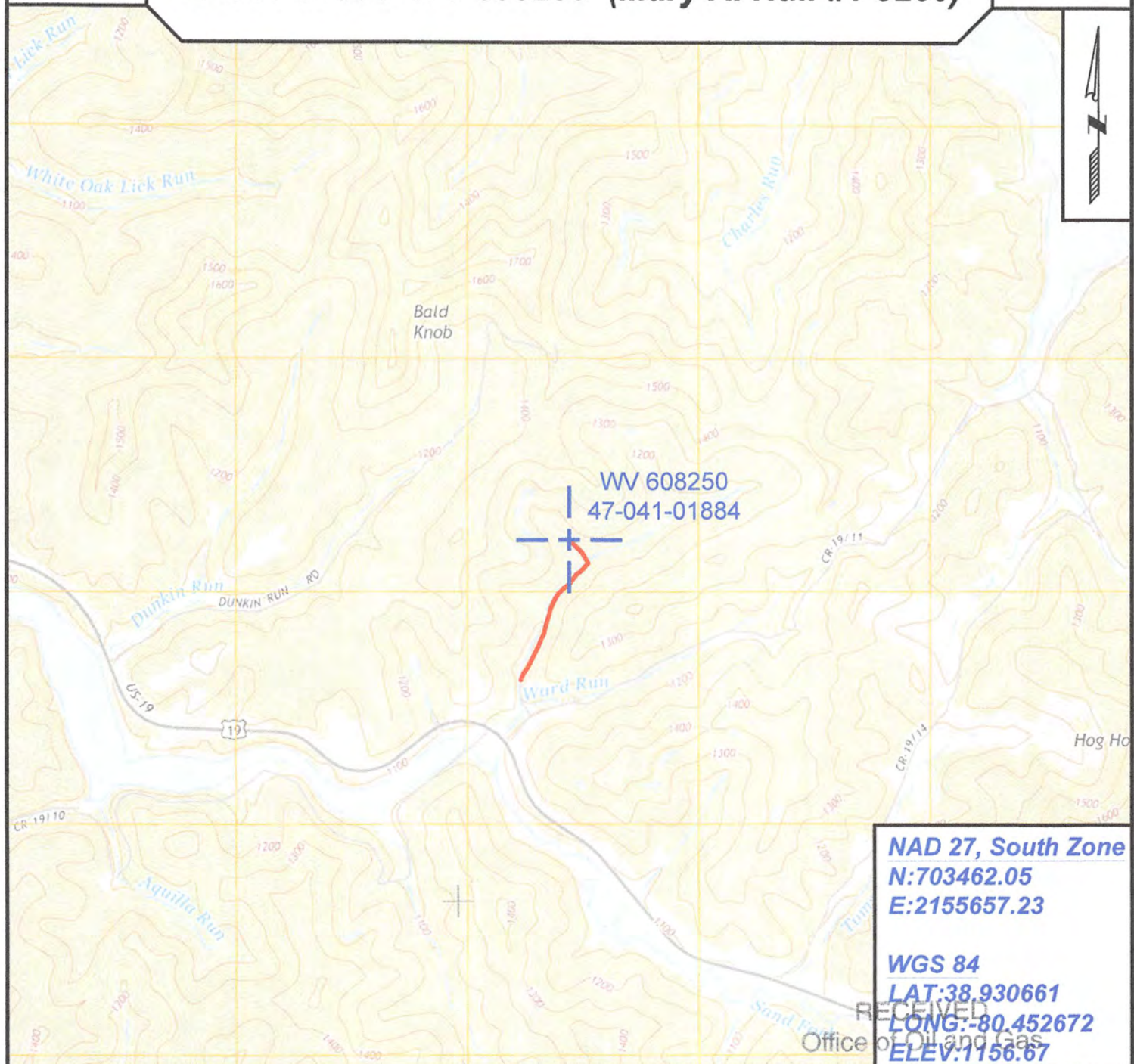
Title: Inspector Date: 6-1-16
 Field Reviewed? Yes No

41018847

Topo Quad: Roanoke 7.5' Scale: 1" = 2000'
 County: Lewis Date: April 26, 2016
 District: Collins Settlement Project No: 73-12-00-08

47-041-01884 WV 608250 (Mary A. Hull #1 8250)

Topo



NAD 27, South Zone
N:703462.05
E:2155657.23

WGS 84
LAT:38.930661
LONG:-80.452672
ELEV:1156.67

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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: **MAY 17 2016**
EQT Production Company
 WV Department of
 P.O. Box 280
 Environmental Protection
 Bridgeport, WV 26330

06/17/2016

WW-7
8-30-06



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

API: 47-041-01884 WELL NO.: WV 608250 (Mary A. Hull #1 8250)

FARM NAME: Mary A. Hull

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Lewis DISTRICT: Collins Settlement - 01

QUADRANGLE: Roanoke 7.5' - 580

SURFACE OWNER: United States of America, U.S. Army Corps of Engineers

ROYALTY OWNER: United States of America, U.S. Army Corps of Engineers, et al.

UTM GPS NORTHING: 4309224

UTM GPS EASTING: 547440 GPS ELEVATION: 352m (1157 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:

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 X : Post Processed Differential X
 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.

Stacy O'Brien
Signature

PS# 2180
Title

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Office of Oil and Gas
4/28/16 2016
Date

WV Department of
Environmental Protection
06/17/2016

Topo Quad: Roanoke 7.5' Scale: 1" = 2000'

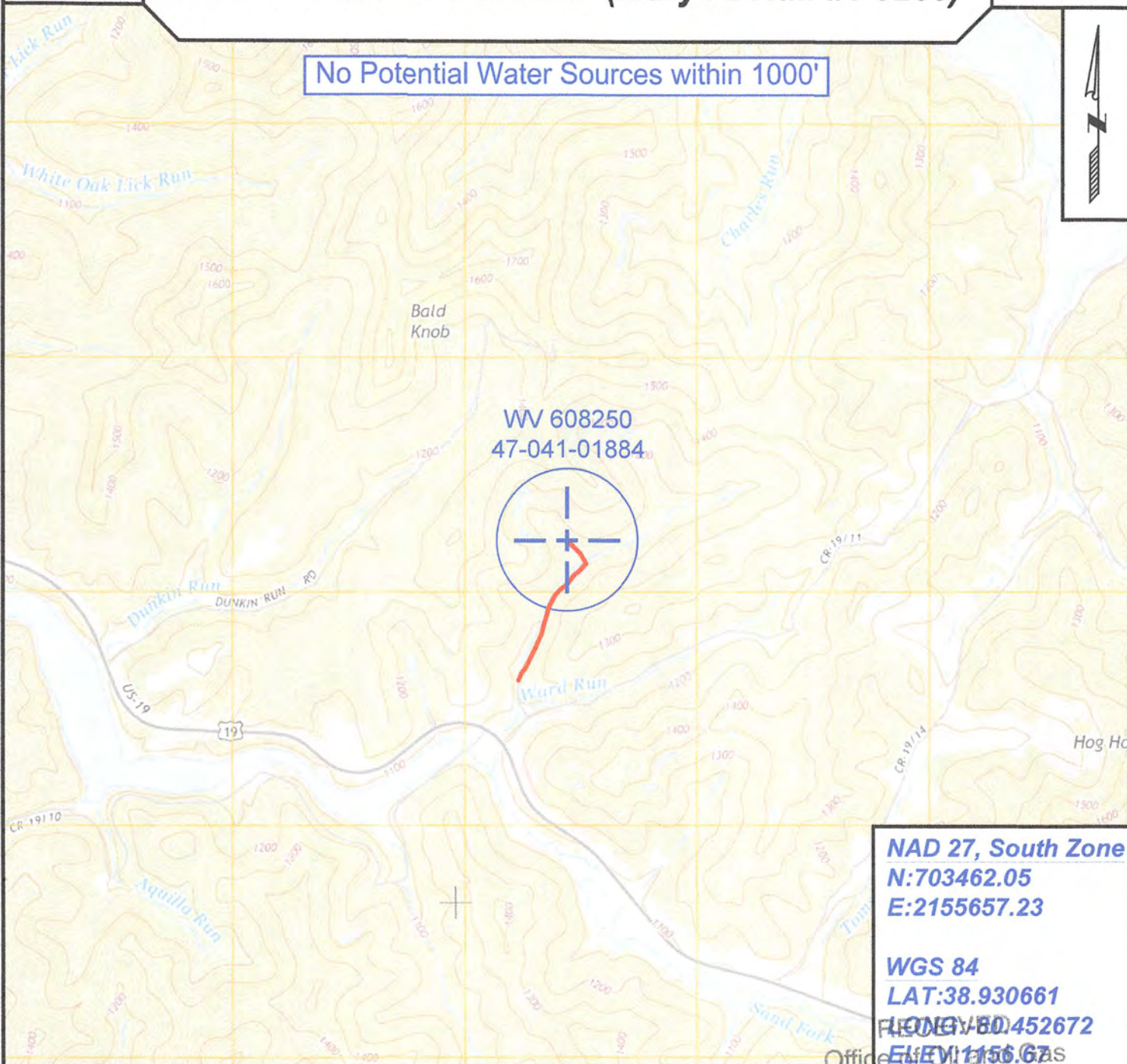
County: Lewis Date: April 26, 2016

District: Collins Settlement Project No: 73-12-00-08

Water

47-041-01884 WV 608250 (Mary A. Hull #1 8250)

No Potential Water Sources within 1000'



WV 608250
47-041-01884

NAD 27, South Zone
N:703462.05
E:2155657.23

WGS 84
LAT:38.930661
LONG:-80.452672
ELEV:1156.67



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 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
 MAY 17 2016
 W.V. Department of
 Environmental Protection
 06/17/2016



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EOT PRODUCTION COMPANY
LEASE NAME AND WELL No. Mary A. Hull #1 8250 - WV 608250 - API No. 47-041-01884

POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 608250.

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Office of Oil and Gas

MAY 17 2016

MARTINSBURG OFFICE

25 Lights Addition Drive

WV Department of

Environmental Protection

phone: 304-901-0163
fax: 304-901-2182

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