



**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

May 20, 2014

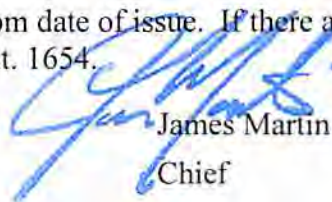
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-2100780, 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: W 160051 (STEINBECK HEIRS #4  
Farm Name: ARBUCKLE, ERNEST L. FAMILY

**API Well Number: 47-2100780**

**Permit Type: Plugging**

Date Issued: 05/20/2014

**Promoting a healthy environment.**

**05/23/2014**

## 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.
4. This well is under a consent order and must be plugged within two years of the date of issuance of this permit.

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

Date: 5-13-14  
Operator's Well \_\_\_\_\_  
Well No. 160051(Steinbeck Heirs #4)  
API Well No.: 47 021 - 00780

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

OK #17814  
\$100<sup>00</sup>

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' Watershed: Mudlick Run of Tanner Creek of Little Kanawha River  
Location: Troy County: Gilmer Quadrangle: Glenville 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 Bryan Harris  
Name: P.O. Box 157  
Address: Volga, WV 26238

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

MAY 14 2014

Office of Oil and Gas  
WV Dept. 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 \_\_\_\_\_

Date \_\_\_\_\_

OK JMM  
FOR Bryan Harris

05/23/2014



## PLUGGING PROGNOSIS - Weston

**Steinbeck Hrs. # 4 (160051)**

Gilmer, Co., West Virginia  
 API # 47-021-00780  
 District: Troy

BY: Craig Duckworth  
 DATE: 3/5/14

**CURRENT STATUS:**

10" csg @ 20'  
 8 1/4" csg @ 512'  
 6 5/8" csg @ 1670' (packer @ 1409') *6 7/8" x 8 1/4"*  
 2" tbg @ 1970' (packer @ 1402') *HOOD W/ICE*

TD @ 1970'

**Fresh Water @ None Reported**                      **Salt Water @ None Reported**  
**1<sup>st</sup> Salt Sand @ 814'**                                      **Coal @ 978'-979'**  
**Gas Shows @ 1426' to 1443' & 1900'**  
**Oil Shows @ None reported**  
**Stimulation @ Shot 1900' to 1910' & Perfs @ 1412' to 1416'**  
**Elevation @ 1152'**

1. Notify State Inspector, Bryan Harris 304-553-6087, 24 hrs. Prior to commencing operations.
2. TOO H w/ tbg, Free Point 6 5/8", cut 6 5/8" @ free point, TOO H w/ 6 5/8" csg
3. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 6 5/8" cut. Do not omit any plugs *GEL SHOT HOLE*
4. TIIH w/ tbg @ 1900'; Set 280' C1A Cement Plug @ 1900' to 1620' (6 5/8" csg @ 1670' & Gas Show @ 1900' Big Injun)
5. TOO H w/ tbg @ 1620'; gel hole @ 1620' to 1412'
6. TOO H w/ tbg @ 1412'; Set 100' C1A Cement Plug @ 1412' to 1312' (Gas Shows @ 1412'-1416')
7. TOO H w/ tbg @ 1312'; gel hole @ 1312' to 1152'.
8. TOO H w/ tbg @ 1152'; Set 224' C1A Cement Plug @ 1152' to 928' (Elevation @ 1152' & Coal 978'-979')
9. TOO H w/ tbg @ 928'; gel hole @ 928' to 814'
10. TOO H w/ tbg @ 814'; Set 100' C1A Cement Plug @ 814' to 714' ( Salt Sand @ 814' )
11. TOO H w/ tbg @ 714' gel hole @ 714' to 560'.
12. TOO H w/ tbg @ 560'; Set 100' C1A Cement Plug @ 560' to 460' ( 8 1/4" @ 512' )
13. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 8 1/4" cut. Do not omit any plugs
14. TOO H w/ tbg @ 460' gel hole @ 460' to 200'.
15. TOO H w/ tbg @ 200'; Set 200' C1A Cement Plug @ 200' to 0' ( Surface & 10" @ 20' )
16. Top off as needed
17. Set Monument to WV-DEP Specifications
18. Reclaim Location & Road to WV-DEP Specifications

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MAY 14 2014

OK gmm

WV DEP  
 05/23/2014

05/23/2014



Mineral  
Commenced  
Completed  
Date shot  
Volume  
Rock Pressure  
No water

Parkersburg, W.Va.

Same

Aug. 10, 1948

Sept. 17, 1948

Oct. 23, 1900 to 1910 with 20 qts.

50 MCF

Not taken

No coal

2100780

2" packer at 1402

Hook Wall

6 5/8 x 8 1/2 Packer

at 1409

Perf. top 1412

" bot 1416

Sand	Wh	487	534
Sand		683	709
Sand	First Salt	814	834
Sand		940	978
Coal		978	979
Sand		1010	1130
Slate	Black	1130	1265
Sand		1265	1302
Sand		1375	1500
Sand		1602	1628
Rsd Rock		1650	1665
Limo	Black	1665	1670
Limo	White Little Limo	1765	1774
Limo	White Big Limo	1780	1838
Sand	Big Injun	1838	1950
Total depth			1970

Gas 1426-1443

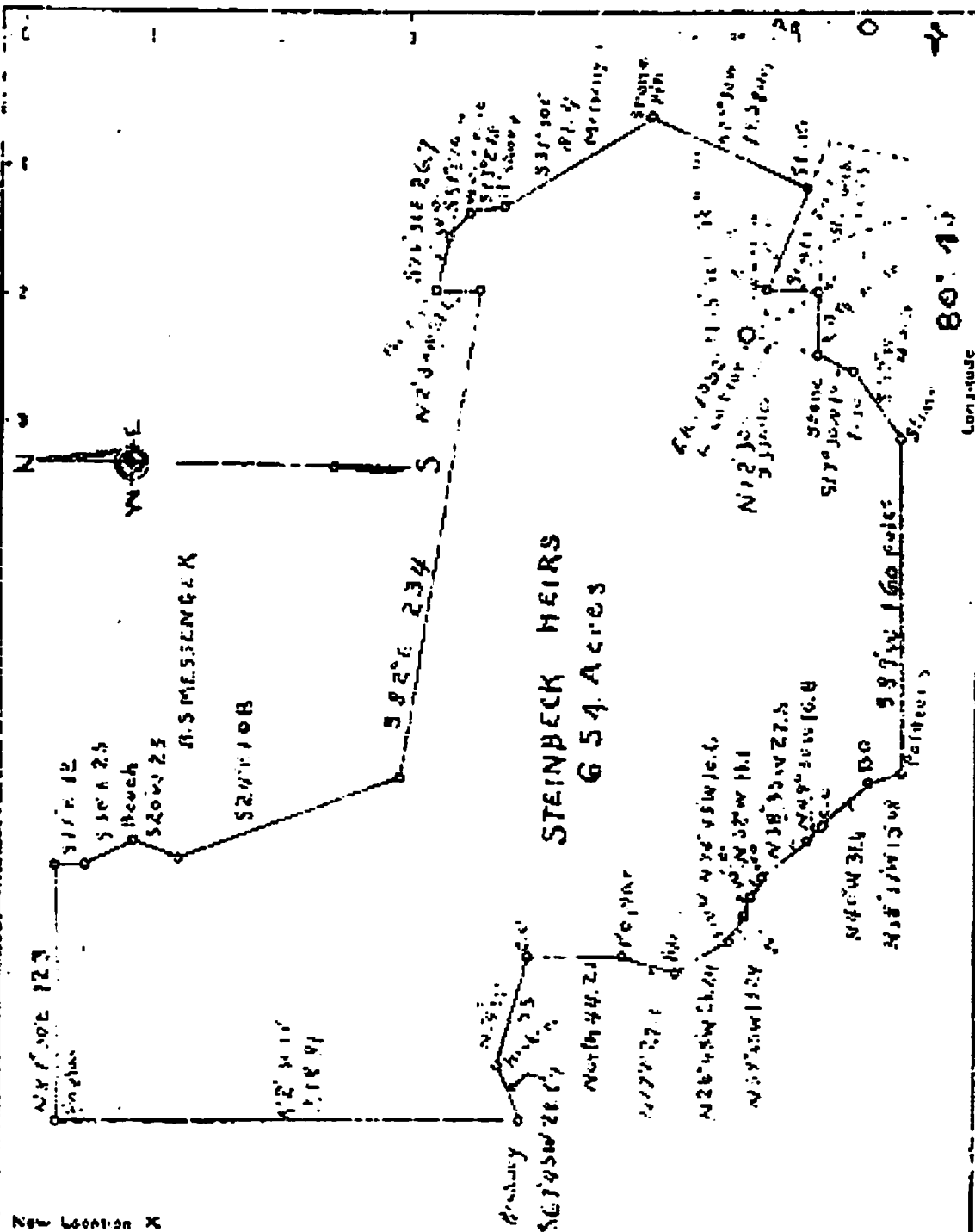
Gas 1900

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Office of Oil and Gas  
West Virginia Department of Environmental Protection

05/23/2014



New Location X  
 Drill Casing  
 Abandonment

Company E. G. BISH  
 Address Clarksburg, W. Va.  
 Farm Steinbeck Heirs  
 Tract \_\_\_\_\_ Acres 654 Lease No \_\_\_\_\_  
 Well Farm No 5 Serial No. \_\_\_\_\_  
 Elev. to Spout Level 1052  
 Quadrangle Glennville  
 County Gilmer District Troy  
 Engineer M. L. B. Linger  
 Engineer's Registration No 261  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date July 21, 1940 Scale 1" = 60' or less

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

**WELL LOCATION MAP**  
 FILE NO. 67L-780

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

- Denotes new iron forces on under end of original casing

77625

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Office of Oil and Gas  
 WV Dept. of Environmental Protection



- 1) Date: 5-13-14  
 2) Operator's Well Number 160051(Steinbeck Heirs #4)  
 3) API Well No.: 47 021 - 00780  
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 Ernest L. Arbuckle Family Trust  
 Address C/O Security National Trust Co.  
1300 Chapline St.  
Wheeling, WV 26003

(b) Name \_\_\_\_\_  
 Address \_\_\_\_\_

(c) Name \_\_\_\_\_  
 Address \_\_\_\_\_

6) Inspector Bryan Harris  
 Address P.O. Box 157  
Volga, WV 26238  
 Telephone 304-553-6087

5) (a) Coal Operator:  
 Name None  
 Address \_\_\_\_\_

(b) Coal Owner(s) with Declaration  
 Name Unknown  
 Address \_\_\_\_\_

(c) Coal Lessee with Declaration  
 Name None  
 Address \_\_\_\_\_

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MAY 14 2014

Office of Oil and Gas  
 WV Dept. of Environmental Protection

**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  
Permitting Supervisor  
PO Box 280  
Bridgeport, WV 26330  
(304) 848-0076

OFFICIAL SEALS:  
 STATE OF WEST VIRGINIA  
 NOTARY PUBLIC  
 Nicholas L. Bumgardner  
 Rt. 1, Box 4  
 Liberty, WV 25124  
 My Commission Expires July 27, 2018

Subscribed and sworn before me this 12 day of MAY, 2014

My Commission Expires: 6/27/2018 Notary Public

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 [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).



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City, State, |

**Ernest L. Arbuckle Family Trust  
C/O Security National Trust Co.  
1300 Chapline St.  
Wheeling, WV 26003  
Plugging 160051**

PS Form 3800, August 2006 See Reverse for Instructions

Ernest L. Arbuckle Family Trust  
C/O Security National Trust Co.  
1300 Chapline St.  
Wheeling, WV 26003  
Plugging 160051

**SENDER: COMPLETE THIS SECTION**

1. Article Addressed to:  
Ernest L. Arbuckle Family Trust  
C/O Security National Trust Co.  
1300 Chapline St.  
Wheeling, WV 26003  
Plugging 160051

2. Article Number (Transfer from service label)  
7014 0510 0000 4439 4343

PS Form 3811, July 2013 Domestic Return Receipt

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  X  
Agent   
Address

B. Received by (Printed Name) \_\_\_\_\_  
C. Date of Delivery \_\_\_\_\_

D. Is delivery address different from item 1?  Yes  No  
If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Priority Mail Express  
 Registered  Return Receipt for Merchandise  
 Insured Mail  Collect on Delivery

4. Restricted Delivery? (Extra Fee)  Yes  No

**EQT**  
C/O Vicki Roark  
P.O. Box 280  
Bridgeport, WV 26330

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Office of Oil and Gas  
WV Dept. of Environmental Protection

05/23/2014

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**EQT**  
C/O Vicki Roark  
P.O. Box 280  
Bridgeport, WV 26330

neopost®  
05/13/2014  
**US POSTAGE**  
\$02.24  
ZIP 26330  
041110228892

Bryan Harris  
P.O. Box 157  
Volga, WV 26238

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Office of Oil and Gas  
WV Dept. of Economic Development

05/23/2014

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: Mudlick Run of Tanner Creek of Little Kanawha River Quadrangle: Glenville 7.5'  
Elevation: 1157' County: Gilmer District: Troy

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.

Proposed Disposal Method for Treated Pit Wastes:  
 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? \_\_\_\_\_

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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? \_\_\_\_\_

MAY 14 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

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 12 day of MAY, 2014

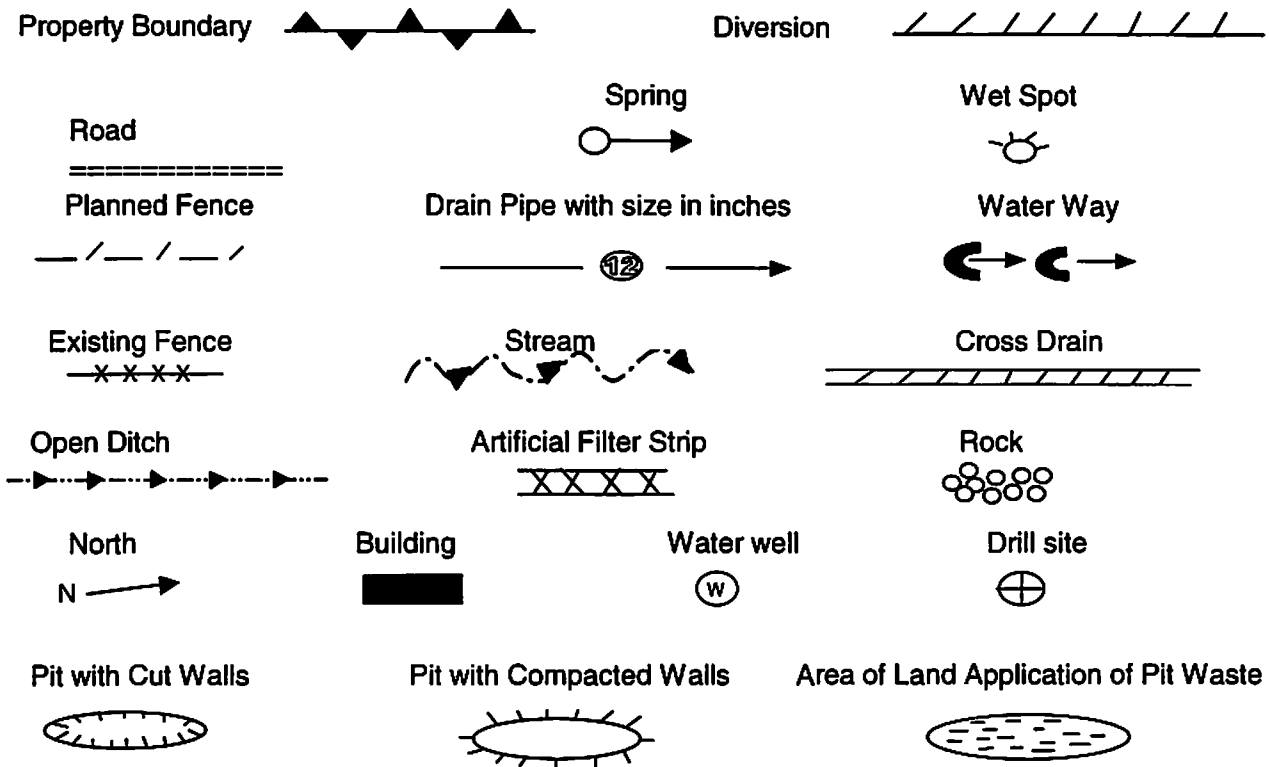
My Commission Expires 6/27/2018

Notary Public  
OFFICIAL SEAL  
STATE OF WEST VIRGINIA  
NOTARY PUBLIC  
Nicholas L. Bumgardner  
Rt. 1, Box 4  
Liberty, WV 26112  
My Comm. Expires July 17, 2018  
05/23/2014



**OPERATOR'S WELL NO.:**  
**160051(Steinbeck Heirs #4)**

**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 5.8  
 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
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

**ATTACH:**

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

Plan approved by: \_\_\_\_\_

Comments: \_\_\_\_\_

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MAY 14 2014

Title: \_\_\_\_\_ Date: \_\_\_\_\_  
 Field Reviewed? Yes No

Office of Oil and Gas  
 WV Dept. of Environmental Protection

05/23/2014

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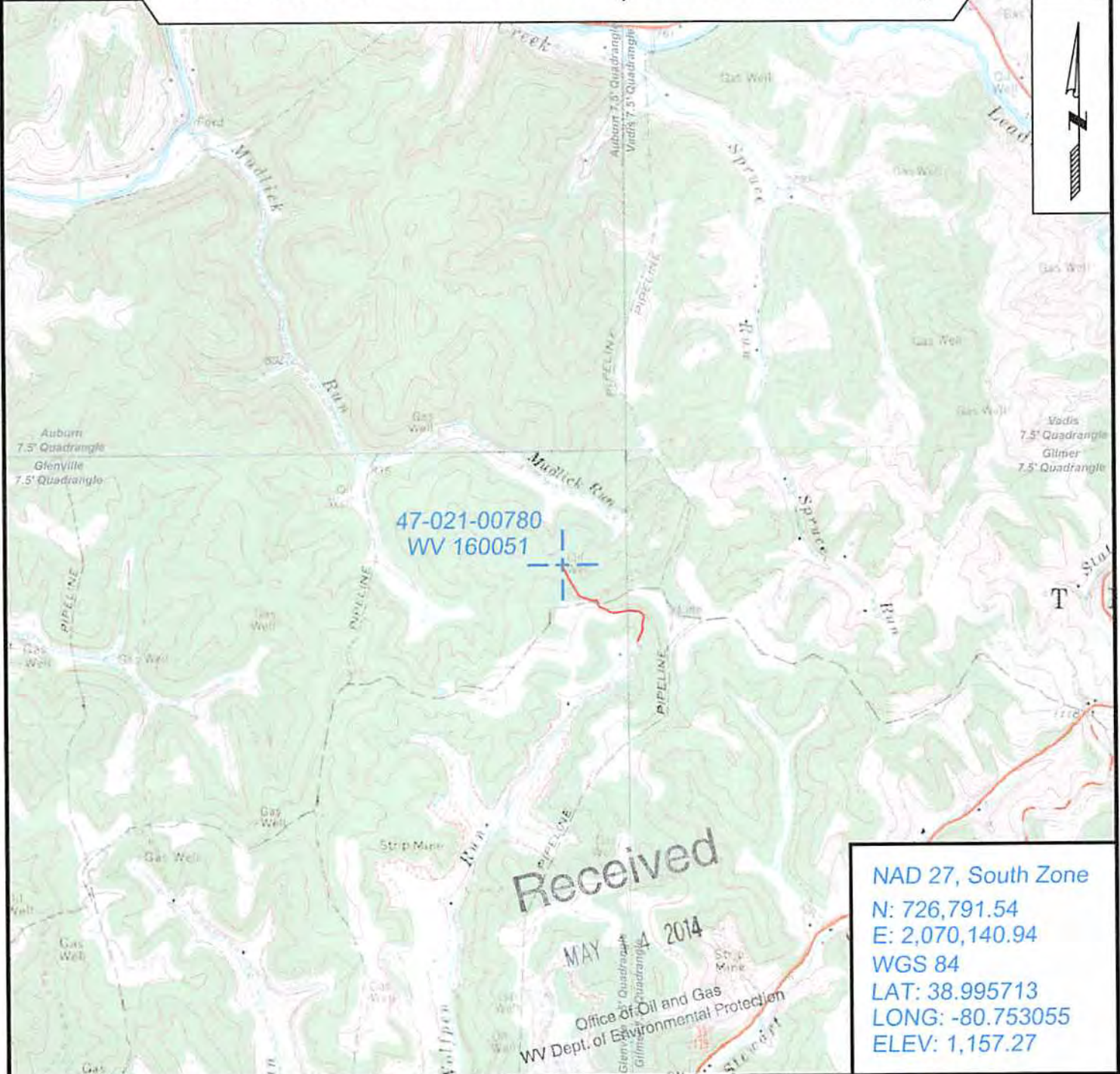
Topo Quad: Glenville 7.5' Scale: 1" = 2000'

County: Gilmer Date: April 21, 2014

District: Troy Project No: 25-19-00-07

47-021-00780 WV 160051 (Steinbeck Heirs #4)

Topo



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

05/23/2014



21 00780 P

WW-7  
8-30-06



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

API: 47-021-00780 WELL NO.: WV 160051 (Steinbeck Heirs #4)

FARM NAME: Steinbeck Heirs

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Gilmer DISTRICT: Troy 4

QUADRANGLE: Glenville 7.5' 372

SURFACE OWNER: Ernest L. Arbuckle Family Trust

ROYALTY OWNER: Ernest L. Arbuckle Family Trust, et. al.

UTM GPS NORTHING: 4316330

UTM GPS EASTING: 521385 GPS ELEVATION: 353 m (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.

Received

MAY 14 2014

*Stacy Okun*  
Signature

PS# 2180  
Title

4/30/14  
Date

05/23/2014





### POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY  
LEASE NAME AND WELL No. Steinbeck Heirs #4 - WV 160051 - API No. 47-021-00780

#### POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 160051.

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Office of Oil and Gas  
WV Dept. of Environmental Protection

**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

**CALDWELL OFFICE**  
212 Cumberland Street  
Caldwell, OH 43724  
*phone:* 740-305-5007  
*fax:* 740-305-5126

**ALUM CREEK OFFICE**  
P.O. Box 108 • 1413 Childress Road  
Alum Creek, WV 25003  
*phone:* 304-756-2949  
*fax:* 304-756-2948

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

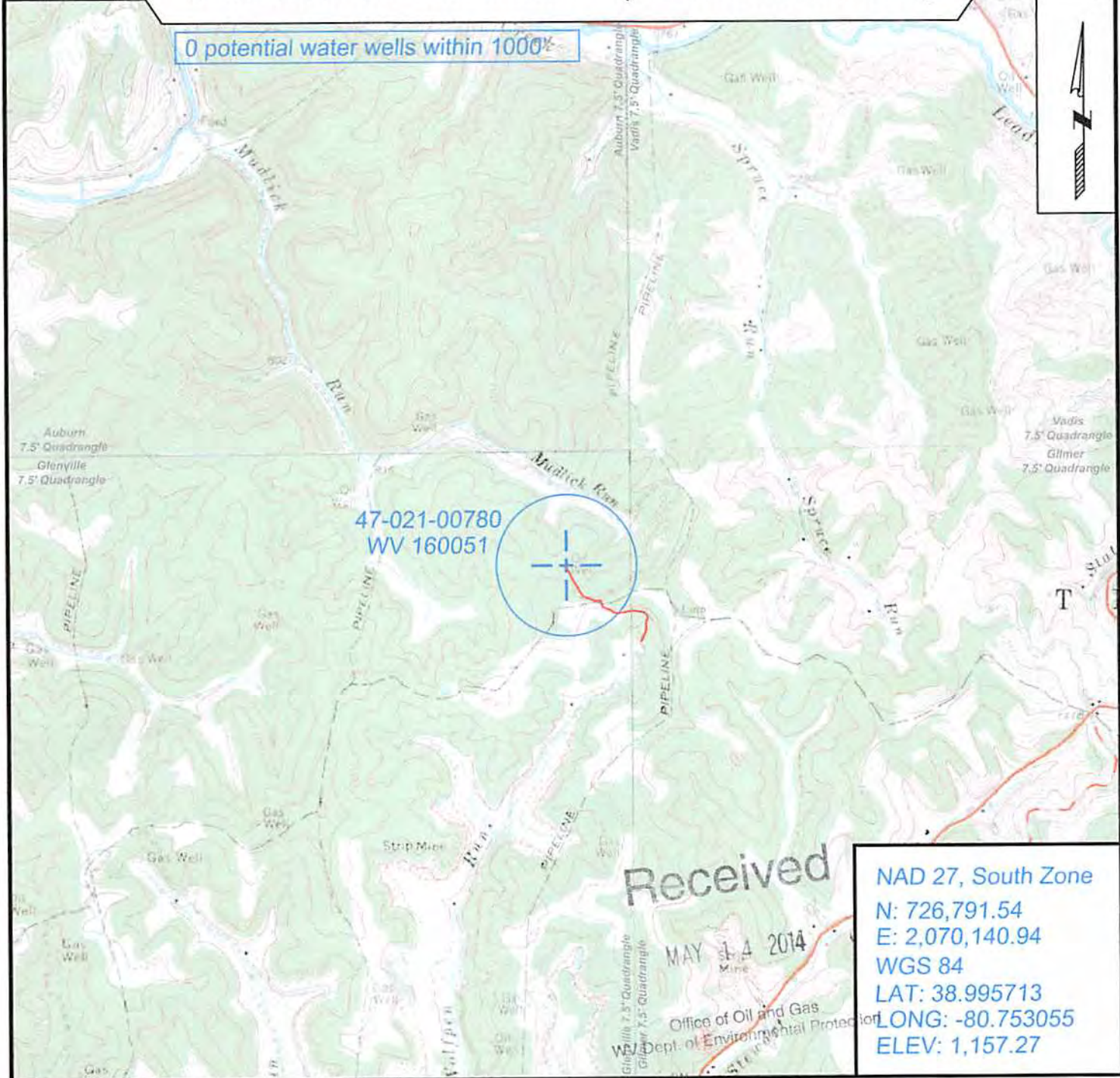
County: Gilmer Date: April 21, 2014

District: Troy Project No: 25-19-00-07

Water

47-021-00780 WV 160051 (Steinbeck Heirs #4)

0 potential water wells within 1000'



NAD 27, South Zone  
 N: 726,791.54  
 E: 2,070,140.94  
 WGS 84  
 LAT: 38.995713  
 LONG: -80.753055  
 ELEV: 1,157.27



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

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