



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

September 27, 2013

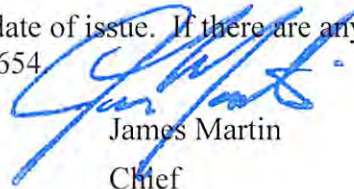
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-2102357, 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: WV161271 WHITING #2A-W175(1)
Farm Name: CENTRAL ENERGY CORPORATI
API Well Number: 47-2102357
Permit Type: Plugging
Date Issued: 09/27/2013

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.

2102357A

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

Date: September 10, 2013
Operator's Well
Well No. WV 161271(Whiting #2A-W175)
API Well No.: 47 021 - 02357

check # 16378
\$ 468.00

**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: 859' Watershed: Little Kanawha River
Location: Glennville 03 County: Gilmer 21 Quadrangle: Gilmer 7.5' 365
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.

OK
gwm

OFFICE USE ONLY

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

Work order approved by inspector _____

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09/27/2013

Plugging Prognosis – Madison District
Whiting #2A W - 175 (161271)
API # 47-021-02357
 Gilmer Co,
 Burnsville, Quad

Prepared by Doug Fry 8/30/2013

Current Status;

8 5/8" @ 398' CMT w/ 150 sks.
 4 1/2" @ 2788' CMT w/ 190 sks
 2" tubing @ 2687'

FW @ 98', 185', 215', 350', 660' Coal @ 98'-104' Salt Sand estimated depth 1702'
 Gas Shows @ 2064' – 2155' Sand *Elev. 965'*
 Oil Shows @ 2710'-2692' Sand
 Completion: /Perfs @ 2692' Sand, Perfs /1955' Lime

- 1) Notify State Inspector **Bryan Harris 304 553 6087** 24 hrs prior to commencing operations.
- 2) TOOH w/ 2" tubing and check condition.
- 3) TIH w/ 2" tubing, Tallying pipe on the way in @ 2692', set 100' C1A cement plug @ 2692' to 2592'. (Sand Gas Perfs).
- 4) TOOH w/ tubing @ 2592', Gel Hole @ 2592' to 2064'.
- 5) TOOH w/ tubing @ 2064', set 462' C1A cement plug @ 2064' to 1602'. (Salt Sand, Sand Show Perfs)
- 6) TOOH w/ tubing @ ~~1765'~~^{1602'}, Gel Hole @ 1602' to 1200'.
- 7) TOOH w/ 2" tubing, Free point 4 1/2" csg, Cut 4 1/2" csg @ free point, TOOH w/ 4 1/2" "csg unless casing is needed to stay in the hole to stabilize while setting any bottom hole plugs and then pull 4 1/2" csg.
- 8) Set 100' C1A cement plug 50' In/Out of cut. Perf all, Coal, Gas, Oil & FW shows below 4 1/2" cut do not omit any plugs shown below.
- 9) TIH w/ tubing @ 1200', set 100' C1A cement plug @ 1200' to 1100'. (Insurance plug)
- 10) TOOH w/ tubing @ 1100', Gel Hole @ 1100' to 720'.
- 11) TOOH w/ tubing @ 720', set 100' C1A cement plug @ 720' to 620'. (FW Show)
- 12) TOOH w/ tubing @ 620', Gel Hole @ 620' to 450'
- 13) TIH w/ tubing @ ~~360'~~^{450'}, set ~~360'~~^{450'} Cement Plug to Surface. (4 FW shows, 8 5/8" csg pt, 1 Coal show)
- 14) Top off as needed.
- 15) Set Monument to WV – DEP Specifications
- 20) Reclaim Location & Roads to WV-DEP Specifications.

OK gwm

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OG-10
Rev. - 9-71



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

39-00
4-23
①

WELL RECORD 2

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

Quadrangle Burnsville
GIL-2357
Permit No. _____

Company Waco Oil & Gas
Address Box 4, Glenville, W. Va.
Farm A. E. Whiting Acres 242
Location (waters) Little Kanawha River
Well No. 2-A Plev 965
District Glenville County Gilmer
The surface of tract is owned in fee by A. E. Whiting et al
Address Glenville, W. Va.
Mineral rights are owned by A. E. Whiting et al
Address Glenville, W. Va.
Drilling Commenced 8-20-73
Drilling Completed 8-24-73
Initial open flow No test cu. ft. --- bbls.
Final production 500,000 cu. ft. per day 5 bbls.
Well open one hrs. before test 510 RP.
Well treatment details:
Dowell 10/5/73

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"			
9 5/8			
8 5/8	398	398	150 sks.
7			
5 1/2			
4 1/2		2788	190 sks.
3			
2		2687	
Liners Used			

Attach copy of cementing record.

1600 BW, 88,000# 20/40 sand 1500 GA
BD 2800#, TP 1800#, ISIP 1800#

Logged by Allegheny Surveys

Coal was encountered at 98 Feet _____ Inches
Fresh water 98, 185, 215 & 350 & 660 Feet
Producing Sand Squaw & Fifth Sand Salt Water _____ Feet
Depth 1955 and 2692

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Clay	Blue	Soft	0	40		
Sand Stone	Gray	Hard	40	98		
Coal	Black	Soft	98	104		
Sand/Shale	Gray	Soft	104	434		Water @ 98'
Shale	Blue	Soft	434	644		Water @ 185', 215', 350'
Sand	Gray	Hard	644	730		
Shale	Blue	Soft	730	940		Water @ 660'
Sand	Gray	Hard	940	970		
Shale	Gray	Soft	970	1381		
Sand	Gray	Hard	1381	1414		
Shale	Gray	Soft	1414	1430		
Sand	Gray	Hard	1430	1525		
Shale	Gray	Soft	1525	1550		
Sand	Gray	Hard	1550	1590		
Shale	Gray	Soft	1590	1670		
Sand	Gray	Hard	1670	1725		
Shale	Gray	Soft	1725	1805		
Lime	Gray	Hard	1805	1845		
Shale	Black	Soft	1845	1865		
Lime	Gray	Hard	1865	2058		
Shale	Gray	Soft	2058	2064		
Sand	Gray	Hard	2064	2155		
Shale/sand	Gray	Soft	2155	2692		
Sand	Gray	Hard	2692	2710		

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* Indicates Electric Log tops in the remarks section.

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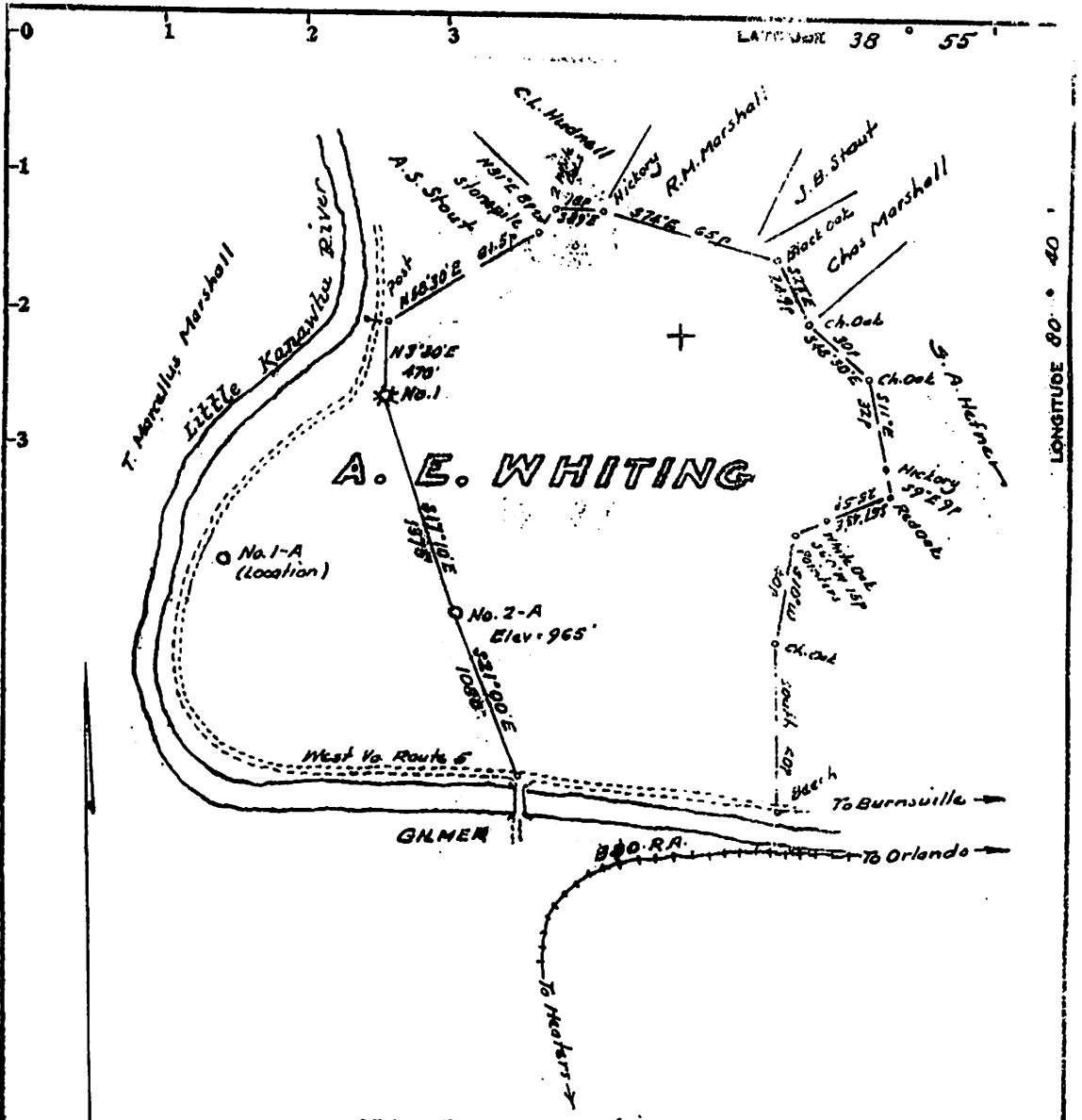
Formation	Color	Hard or Soft	Top Feet ±	Bottom Feet	Oil, Gas or Water	• Remarks
Shale	Gray	Soft	2710	2727		
		TOTAL DEPTH	2737			

Date November 15, 19 73

APPROVED Waco Oil & Gas **RECEIVED** Owner
 By [Signature] Office of Oil & Gas Owner
 (Title)
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WV Department of
 Environmental Protection
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Minimum Error of Closure 1 in 200
 Source of Elevation U.S.G.S. elev. at Gilmer = 756'

Fracture.....
 New Location...
 Drill Deeper.....
 Abandonment.....

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Signed: M. J. [Signature]
 Map No. _____ Squares: N S E W

Company W. E. [Signature], Inc.
W. E. [Signature] & GAS CO.
 Address Chester, West Va.
 Farm A. E. Whiting
 Tract _____ Acres 242 Lease No. _____
 Well (Farm) No. Two-A Serial No. _____
 Elevation (Spirit Level) 965'
 Quadrangle Burnsville
 County Gilmer District Gilmerville
 Engineer M. J. [Signature]
 Engineer's Registration No. 1227
 File No. _____ Drawing No. _____
 Date July 26, 1973 Scale 1" = 500' @ 25'

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

WELL LOCATION MAP
 FILE NO. Gil-2357

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+ Denotes location of well on United States Topographic Map, 1:50,000 scale and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

2102357P

WW-4-A
Revised 6/07

1) Date: September 10, 2013
2) Operator's Well Number
WV 161271(Whiting #2A-W175)
3) API Well No.: 47 021 - 02357
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

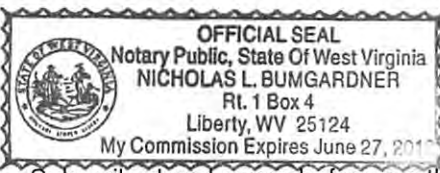
4) Surface Owner(s) to be served:
(a) Name Central Energy Corporation ✓
Address C/O Waco Oil & Gas Co. Inc.
P.O. Box 297
Glenville, WV 26351
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Bryan Harris ✓
Address P.O. Box 157
Volga, WV 26238
Telephone 304-553-6087

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name Central Energy Corporation ✓
C/O Waco Oil & Gas Co. Inc.
Address P.O. Box 297
Glenville, WV 26351
Name _____
Address _____
(c) Coal Lessee with Declaration
Name None
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 10 day of SEPTEMBER, 2013
[Signature] Notary Public
My Commission Expires: 6/27/2014

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.

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2) Operator's Well Number

WV 161271(Whiting #2A-W175)

3) API Well No.: 47 021 - 02357

**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: Little Kanawha River Quadrangle: Gilmer 7.5'

Elevation: 859' County: Gilmer District: Glenville

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.? 30 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? _____

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*

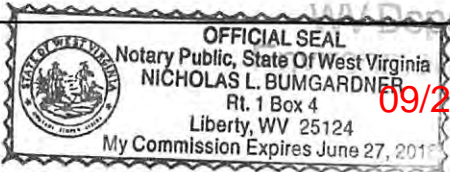
Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 10 day of SEPTEMBER, 2013

My Commission Expires 6/27/2018 Notary Public

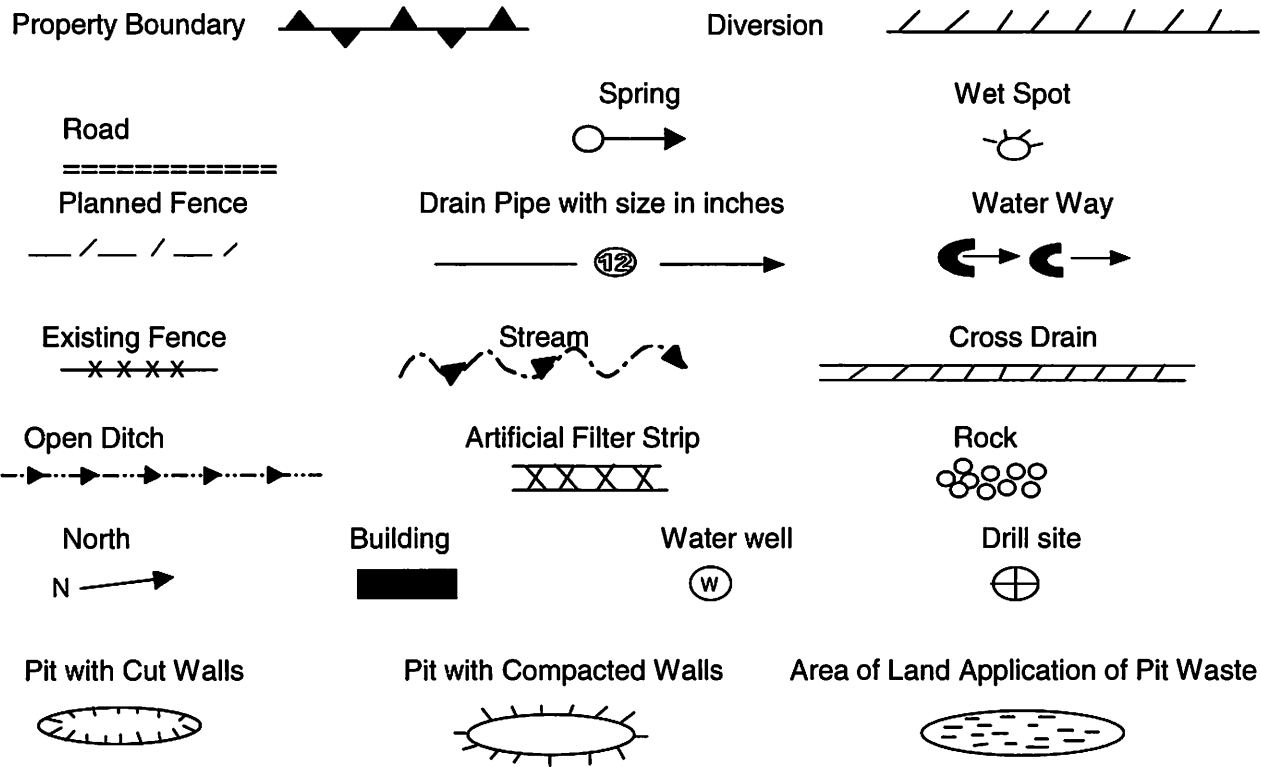
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OPERATOR'S WELL NO.:
WV 161271(Whiting #2A-W175)

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

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

Area II

Seed Type	lbs/acre
Orchard Grass	15
Alsike Clover	5

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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Title: _____ Date: _____

Field Reviewed? Yes No

09/27/2013

2102357A

Topo Quad: Gilmer 7.5'

Scale: 1" = 2000'

County: Gilmer

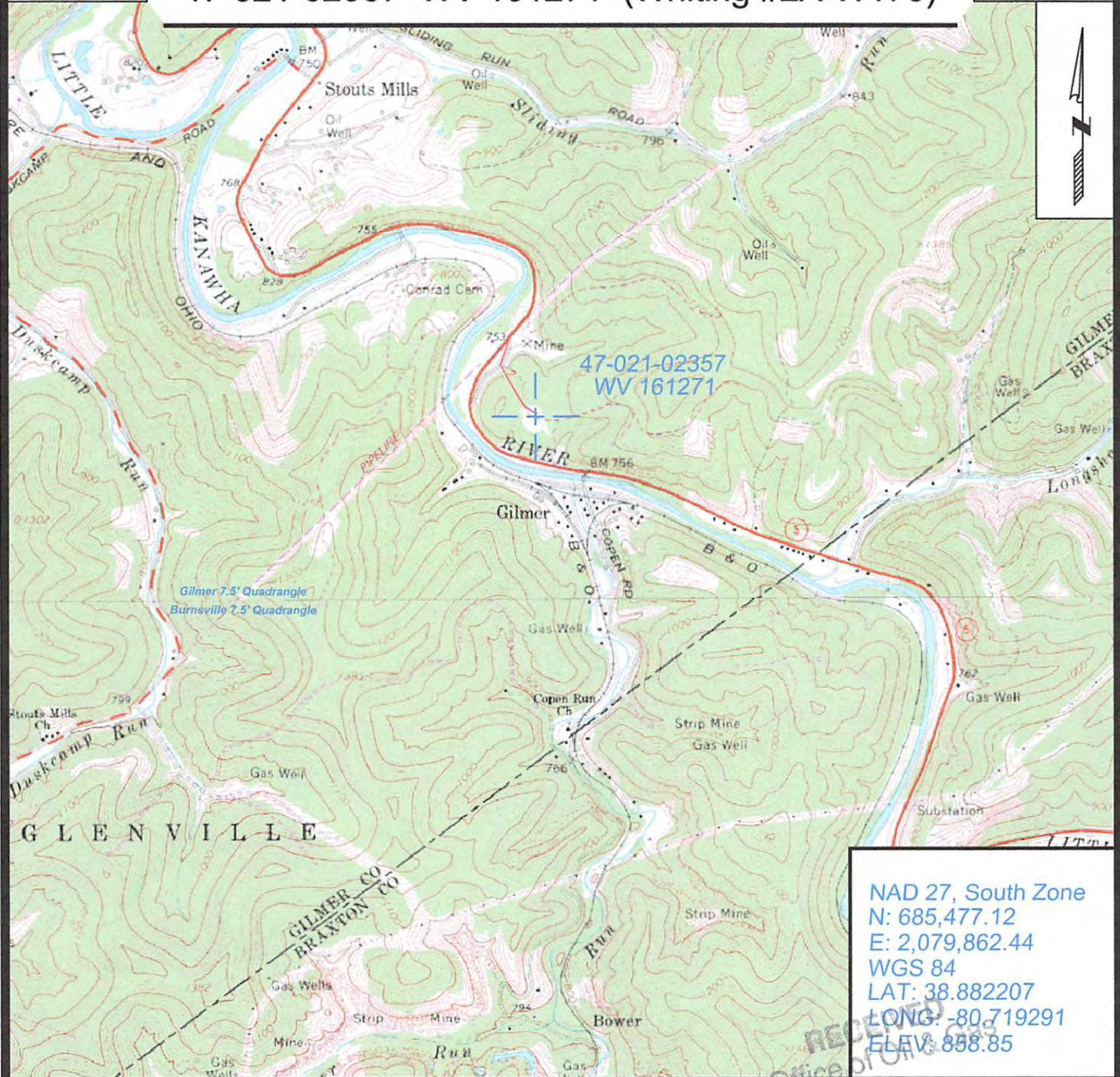
Date: August 22, 2013

District: Glennville

Project No: 25-19-00-07

47-021-02357 WV 161271 (Whiting #2A-W175)

Topo



NAD 27, South Zone
 N: 685,477.12
 E: 2,079,862.44
 WGS 84
 LAT: 38.882207
 LONG: -80.719291
 ELEV: 858.85



SURVEYING AND MAPPING SERVICES PERFORMED BY:
ALLEGHENY SURVEYS, INC.
 1-800-482-8606
 P.O. BOX 438
 BIRCH RIVER, WV 26610
 PH: (304) 649-8606
 FAX: (304) 649-8608

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

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 Environmental Protection

09/27/2013



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY
 LEASE NAME AND WELL No. Whiting WV 161271 (47-021-02357)

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 1000' of the existing well site. The following landowners will be notified of the opportunity to request a water sample.

*Please note that the following information is subject to change upon field inspection.

POTENTIAL SAMPLE LOCATIONS

Site: 1 Spacing: 990' +/- Owner: National Timber Partners WV 3 LLC
 Address: 471 B&O Overpass Road, Hedgesville, WV 25427 Phone No. _____
 Comments:

Site: 2 Spacing: 990' +/- Owner: CSX Corporation
 Address: 500 Water Street, Jacksonville, FL 32202 Phone No. 904.359.3200
 Comments:

BIRCH RIVER OFFICE
 P.O. Box 438 • 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 • 4415 Childress Road
 Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948
 SEP 12 2013

2102357P

Topo Quad: Gilmer 7.5'

Scale: 1" = 2000'

County: Gilmer

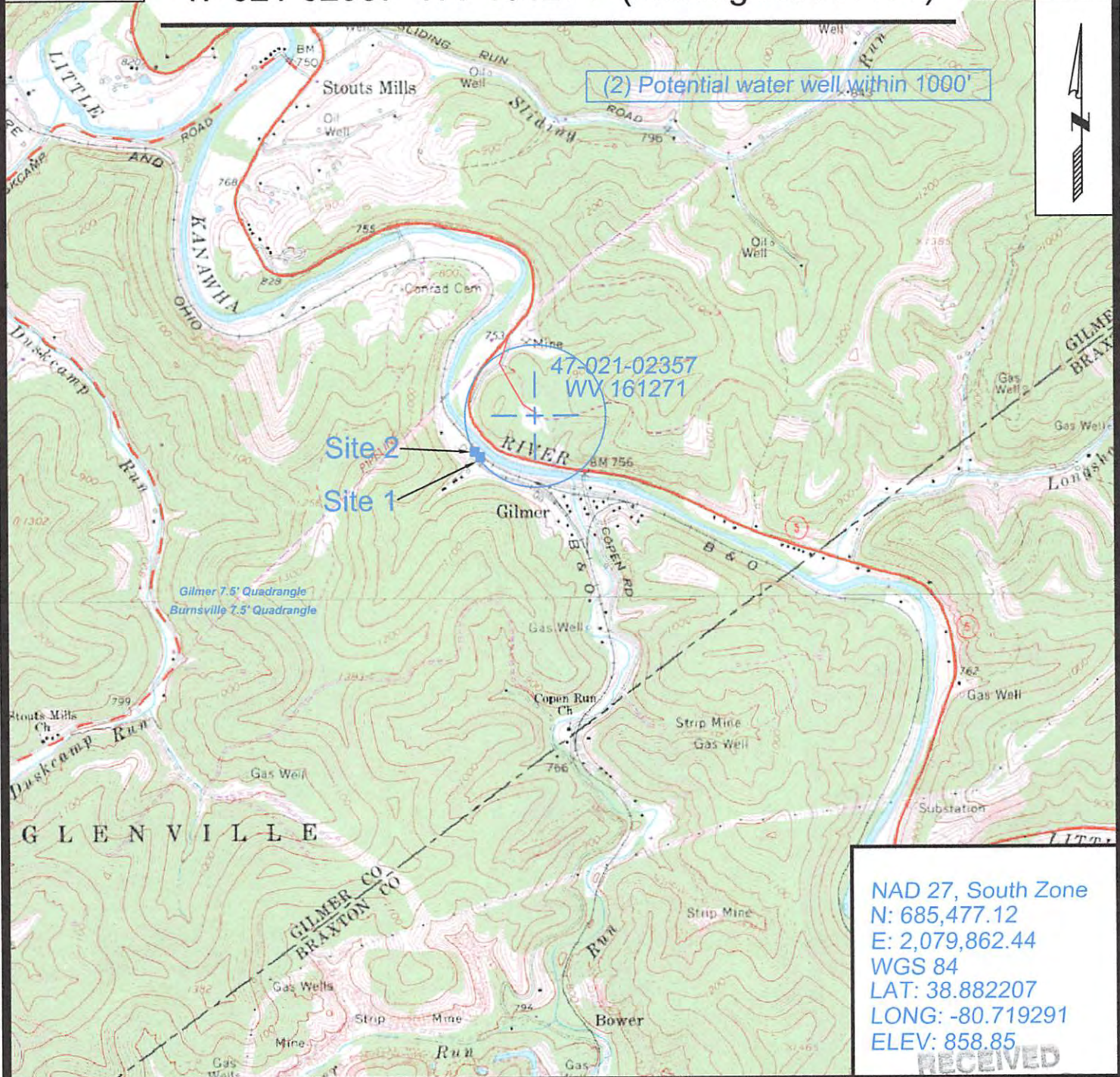
Date: August 22, 2013

District: Glennville

Project No: 25-19-00-07

Water

47-021-02357 WV 161271 (Whiting #2A-W175)



(2) Potential water well within 1000'

47-021-02357
WV 161271

Site 2
Site 1

NAD 27, South Zone
 N: 685,477.12
 E: 2,079,862.44
 WGS 84
 LAT: 38.882207
 LONG: -80.719291
 ELEV: 858.85



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