



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

February 11, 2014

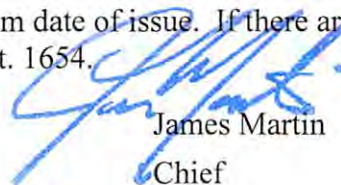
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-2103119, 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: 1148
Farm Name: MILLER, S. S.
API Well Number: 47-2103119
Permit Type: Plugging
Date Issued: 02/11/2014

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

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.

2103119P

CK 17256
100⁰⁰

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

Date: January 23, 2014
Operator's Well _____
Well No. 654616 (S.S. Miller #1148)
API Well No.: 47 021 - 03119

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: 977' Watershed: Grass Run of Little Kanawha River
Location: _____ Center _____ County: _____ Gilmer _____ Quadrangle: _____ Tanner 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 Brian 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.

*Pull all casing
Plug across casing cuts
Tag all plugs*

RECEIVED
Office of Oil and Gas
1/30/2014
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 D. Harrison Date 2-3-14

02/14/2014

PLUGGING PROGNOSIS –Weston

Miller #1148 (654616)

GILMER, COUNTY, WEST VIRGINIA

API # 47-021-03119

Center District

BY: Craig Duckworth

DATE: 10/21/13

CURRENT STATUS:

10" csg @ 150' pulled
 8 1/4" csg @ 687'
 6 5/8" csg @ 1656' pulled
 2" tbg @ 1020' Packer at 1020' with 565' of 3"

TD @ 1585' (TD was @ 1790' filled back to 1585')

Fresh Water @ None Reported

Salt Water @ None reported

1st Salt Sand @ 950'

Coal @ None reported

Gas shows @ 2nd Salt Sand 1035 ; Little Lime 1526'-1530'; Big Injun 1700'

Oil Shows @ Big Injun 1700'

Stimulation: None Reported

1. Notify State Inspector, Bryan Harris 304-553-6087, 24 hrs. Prior to commencing operations.
2. Attempt to pull 2" tbg, If unable to pull, Free point 2" above packer and shoot at free point.
3. TOO H w/ tbg @ 1020'; Set 200' C1A Cement Plug @ 1020' to 820' (gas shows Little Lime @ 1530' ; 2nd Salt Sand @ 1035'; 1st Salt Sand @ 950')
4. TOO H w/ tbg @ 820; gel hole @ 820' to 737'.
5. TOO H w/ tbg @ 737'; Set 100' C1A Cement Plug @ 737' to 637' (8 1/4" csg set 687')
6. 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
7. TOO H w/ tbg @ 637; gel hole @ 637' to 200'
10. TOO H w/ tbg @ 200'; Set 200' C1A Cement Plug @ 200' to Surface (10" @ 150' pulled)
11. Top off as needed
12. Set Monument to WV-DEP Specifications
13. Reclaim Location & Road to WV-DEP Specifications

GEL SPACERS MUST BE PLACED BETWEEN ALL CEMENT PLUGS.

GEL IS AT LEAST 6% BENTONITE (BY WEIGHT) MIXED WITH FRESH WATER.

CARNEGIE NATURAL GAS COMPANY

2103114P Miller 1148
654616
021-03110

Map Sheet No.

RECORD OF WELL

Well No. 2.;

Drilled on S.S. Miller,

Farm of 130

Acres, situa 021-03110

Center

Township District

Gilmer

County

Lease No. 519

Gilmer Shipping Point

RIG

Foreman

WELL

Located Nov. 29. 1922
Notified Gen'l Office
Commenced December 16, 1922
Completed December 24. 1922
Contractor Jhon Craig,
Address Clarksburg, W. Va.,

Commenced Drilling June. 15. 1923
Notified Gen'l Office
Completed Drilling July. 31. 1923
Notified Gen'l Office
Contractor C. W. McCall & Co.,
Address Pittsburg, Pa.,

ROCK FORMATION	TOP	BOTTOM	REMARKS	PRESSURE AND VO
Conductor		13	ELEVATION 965'	1/2 Minute 8
Mapleton Coal				1 " 13
Pittsburgh Coal				2 " 18
Little Dunkard	355	375		3 " 23
Big Dunkard	480	512		4 " 27
Gas Sand	774	890		5 " "
1st Salt Sand	950	990		10 " "
2nd Salt Sand	1010	1155	Gas show 1035	15 " "
Maxton Sand	1488	1545		30 " "
Little Lime	1580	1620	Gas at 1520 to 1550	1 Hour
Pencil Cave	1620	1630		Rock 200
Big Lime	1630	1680		Size of { Tubing 2
Big Injun	1680	1790	Gas show 1700	Size of { Casing
Gantz Sand				Vol. by Water 12/100
50 Foot Sand				" " Mercury
30 Foot Sand				" " Pressure
Gordon Stray				
Gordon Sand				
4th Sand				
5th Sand			1/19/42 - HOLE FILLED UP TO 1585'	
Bayard Sand				
Elizabeth				
Speechley				
Bradford				

CONNECTED TO MA
Oct 1923 -
Length of Line 375
Size of Line 3"
DISCONNECTED FRC

water pumped with up right boiler

Total Depth ~~1790~~¹⁵⁸⁵ Feet at \$ per Foot \$

Garnegie Nat Gas Co, Gas Furnished at Cents per Foot

CASING RECORD

SIZE	CHARGED TO WELL		PUT IN WELL		PULLED		LEFT IN WELL		TRANSFERRED		LEFT AT WELL		PACKER
	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	
10	160		150		150		None				160		Kind Hook wall
8 1/2	700		687		1556		687				105		Size 8 1/2 by 3
6 3/8	1715		1656		1656		None				1715		Set at 1105
3	200		200				200						WELL SHOT
2	1400		1195				1195				205		By Haretta torp With 15 Qts. at

Casing Cemented in Well..... by.....

02/14/2014

2103119P Miller 1148
654616

1604227

CARNEGIE NATURAL GAS COMPANY

Map Sheet No. Glenville N. W. RECORD OF WELL Well No. 2-021-0311
 Drilled on S. S. Miller Farm of 130 Acres, situate
 Center Township Gilmer County West Va. Lease No. E-5191
 Shipping Point RIG Toll Gate, West Va. Foreman J. W. Sweeney
WELL

Located _____ Commenced Drilling Cleaning out December 1st
 Notified Gen'l Office _____ Notified Gen'l Office _____
 Commenced _____ Completed Drilling Cleaning out January 21st
 Completed _____ Notified Gen'l Office _____
 Contractor _____ Contractor Company Tools #13
 Address _____ Address Luther Davis - Clarence C.

ROCK FORMATION	TOP	BOTTOM	REMARKS	PRESSURE AND V	
				1/2 Minute	8 1/4" (
Conductor				1 " 0	0
Waynesburg Coal				2 " 0	1
Mapleton Coal				3 " 0	2
Pittsburgh Coal				4 " 1	2
Little Dunkard				5 " 2	2
Big Dunkard				10 " 4	4
Gas Sand				15 " 6	5
1st Salt Sand				30 " 12	6
2nd Salt Sand				1 Hour 21	
3rd Salt Sand				Rock 76	
Maxton Sand				Size of { Tubing 2"	
Little Lime				Casing	
Penoll Cave				Vol by Water 21,060 (
Big Lime				" " Mercury	
Big Injun			Cleaned out and retubed with 2" tubing	" " Pressure	
Gantz Sand			with 3" anchor. 3" x 2" reamed swaged		
50 Foot Sand			nipple in top of packer.		
30 Foot Sand			Hole filled solid from 1790' to 1585'		CONNECTED TO MAIN
Gordon Stray			3' 2" tubing rings drove at 1585'		
Gordon Sand				Length of Line	Feet
4th Sand				Size of Line	In
5th Sand			Perforations at 1033'-43' & 1524'-32'		DISCONNECTED FROM
Bayard Sand				Notified Lessor	
Elizabeth				Abandoned	
Speechley				Repacked	
Ttona				With	Feet
Bradford					
Total Depth			1585	Feet at \$	per Foot \$
			Gas Furnished at		Cents per Foot

CASING RECORD

SIZE	CHARGED TO WELL		PUT IN WELL		PULLED		LEFT IN WELL		TRANSFERRED		LEFT AT WELL		PACKER
	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	Feet	In.	
2"	1029		1020				1020				9' thds		Kind Anchor
3"	571		565				565				6' thds		Size 8 1/2" x 3"
3"	1105				534								Set at 1020
													WELL SHOT
													By
													With

WW-4-A
Revised 6/07

1) Date: January 23, 2014
2) Operator's Well Number
654616 (S.S. Miller #1148)
3) API Well No.: 47 021 - 03119
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 Rondal Joe Miller ✓
Address 6541 U.S. Hwy 33 W.
Normantown, WV 25267-8208
(b) Name Waldon D. Furr ✓
Address 6413 U.S. Hwy 33 W
Glennville, WV 26351
(c) Name _____
Address _____
6) Inspector Brian 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 David B. Pierce and/or C.L.Pierce
6778 U.S. Hwy 33 W. ✓
Address Glennville, WV 26351-7029
Name _____
Address _____
(c) Coal Lessee with Declaration
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.



OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
Pamela Sykes
EQT Production
PO Box 280
Bridgeport, WV 26330
My Commission Expires Aug. 24, 2022

Well Operator: EQT Production Company
Name: Victoria J. Roark ✓
Title: Permitting Supervisor
Address: PO Box 280
Bridgeport, WV 26330
Telephone: (304) 848-0076

Subscribed and sworn before me this 23 day of January, 2014
Pamela Sykes Notary Public
My Commission Expires: 8-24-22

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 deprivacyofficer@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: Grass Run of Little Kanawha River Quadrangle: Tanner 7.5'

Elevation: 977' County: Gilmer District: Center

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___ NoX

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.

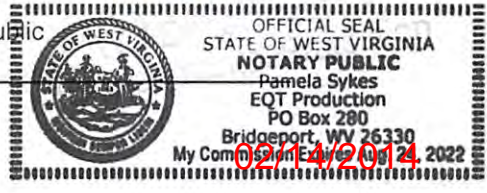
Company Official Signature *Victoria Roark*

Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

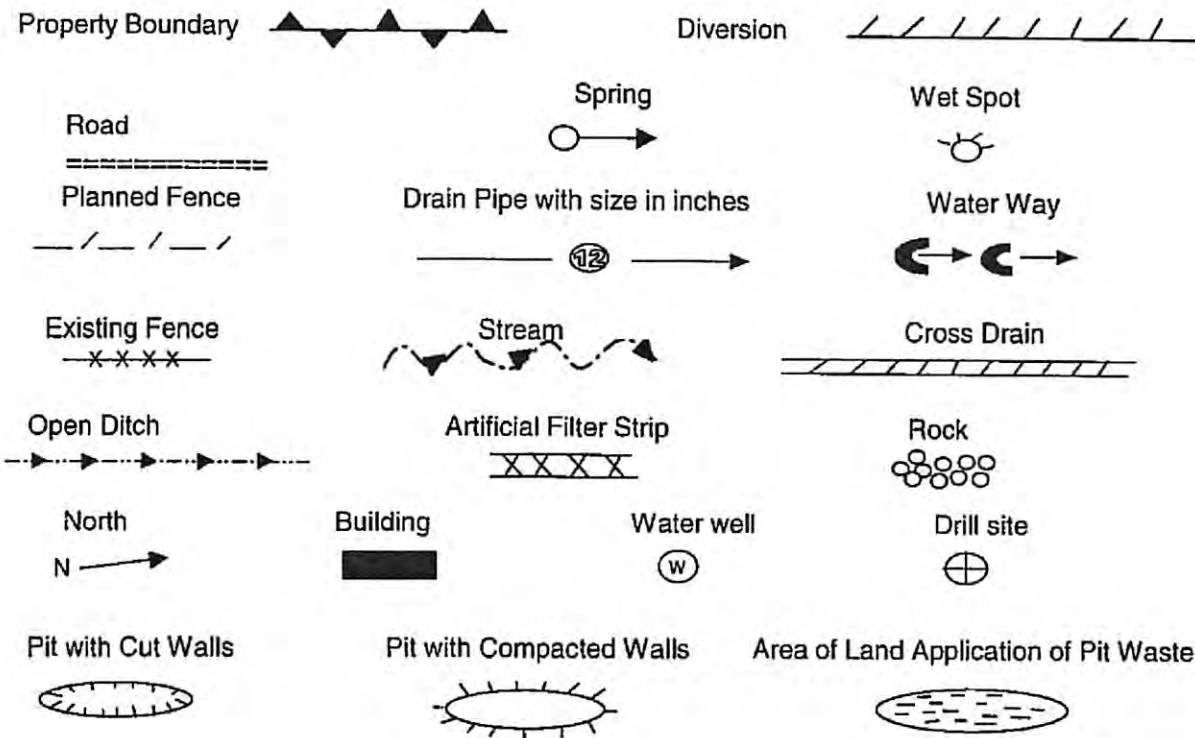
Subscribed and sworn before me this 23 day of January, 2014

Pamela Sykes Notary Public
My Commission Expires 8-24-20



OPERATOR'S WELL NO.:
654616 (S.S. Miller #1148)

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: Diana O'Hara

Comments: _____

Title: Oil & Gas Inspector Date: 2-3-14
 Field Reviewed? Yes No

RECEIVED
 Office of Oil and Gas
 FEB 04 2014
 WV Department of Environmental Protection

2103119P

Topo Quad: Tanner 7.5'

Scale: 1" = 2000'

County: Gilmer

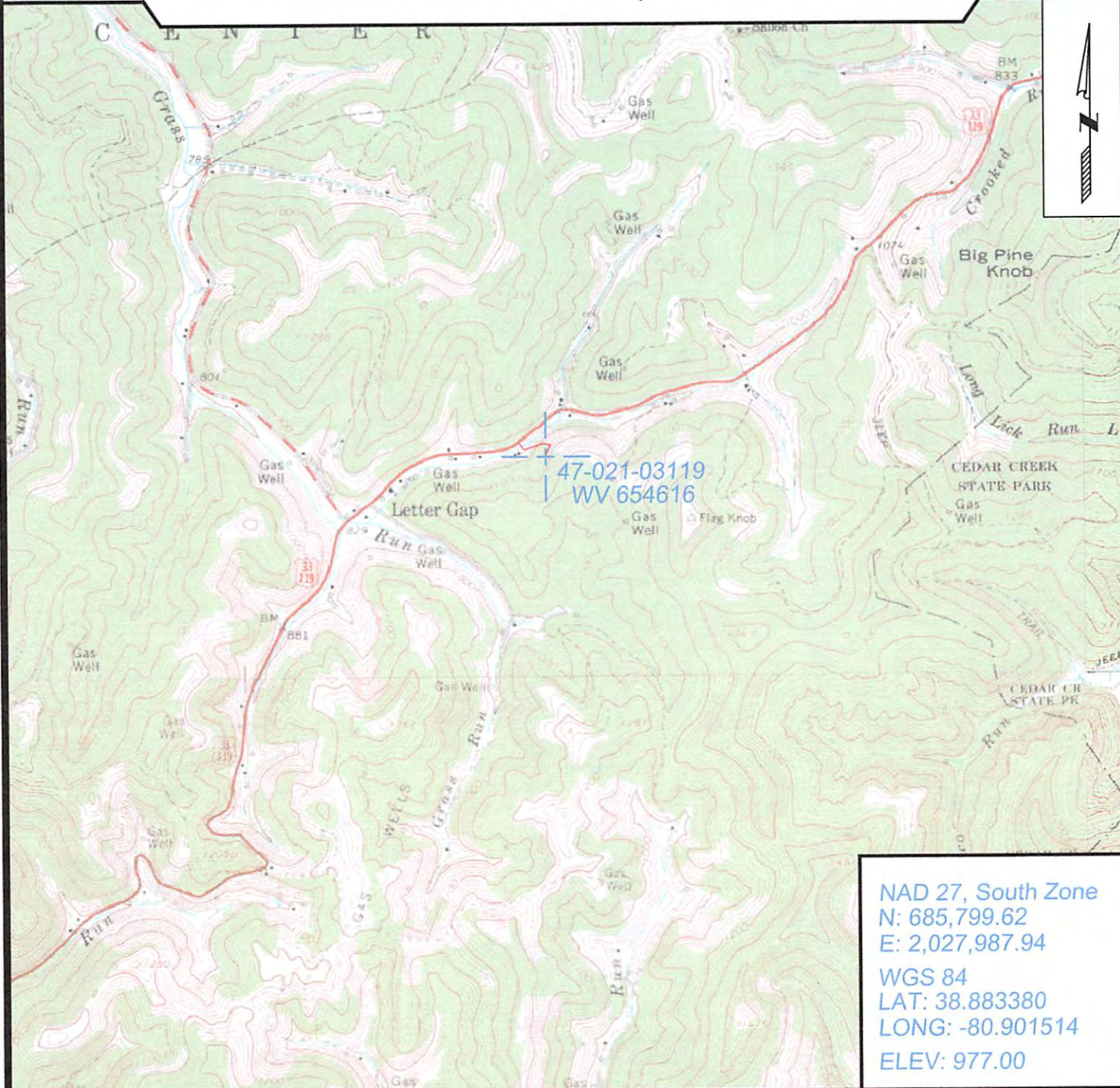
Date: December 2, 2013

District: Center

Project No: 25-19-00-07

47-021-03119 WV 654616 (S. S. Miller #1148)

Topo



NAD 27, South Zone
 N: 685,799.62
 E: 2,027,987.94
 WGS 84
 LAT: 38.883380
 LONG: -80.901514
 ELEV: 977.00



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

02/14/2014

WW-7
8-30-06



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

API: 47-021-03119 WELL NO.: WV 654616 (S. S. Miller #1148)

FARM NAME: S. S. Miller

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: Gilmer ²¹ DISTRICT: Center ¹

QUADRANGLE: Tanner 7.5' ⁶³⁴

SURFACE OWNER: Rondall Joe Miller

ROYALTY OWNER: S. S. Miller Hiers, et al.

UTM GPS NORTHING: 4303840

UTM GPS EASTING: 508542 GPS ELEVATION: 298 m (977 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 : Post Processed Differential
Real-Time Differential
- 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.

[Signature]
Signature
12/5/13
Date

PS # 2180
Title

Topo Quad: Tanner 7.5'

Scale: 1" = 2000'

County: Gilmer

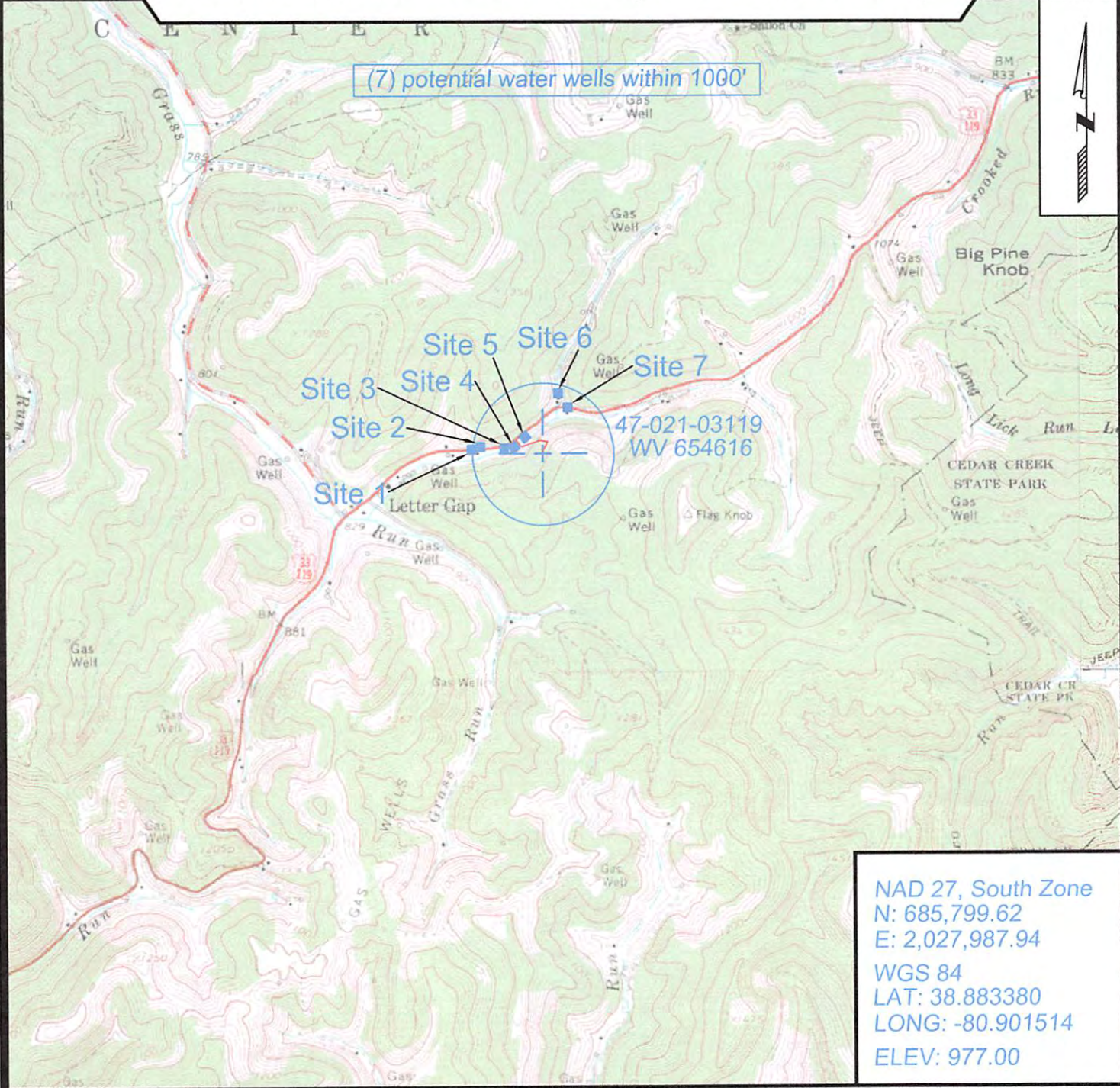
Date: December 2, 2013

District: Center

Project No: 25-19-00-07

Water

47-021-03119 WV 654616 (S. S. Miller #1148)



NAD 27, South Zone
 N: 685,799.62
 E: 2,027,987.94
 WGS 84
 LAT: 38.883380
 LONG: -80.901514
 ELEV: 977.00



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 FAX: (304) 649-8608

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



POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY

LEASE NAME AND WELL No. S.S. Miller #1148 - WV 654616 (47-021-03119)

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: 1009' +/- Owner: Velva C. Taylor

Address: 6761 US Hwy 33W, Glenville, WV 26351

Phone No. _____

Comments:

Site: 2 Spacing: 897' +/- Owner: Wilda M. Kuhl

Address: 6695 US Hwy 33W, Glenville, WV 26351

Phone No. _____

Comments:

Site: 3 Spacing: 468' +/- Owner: Wilda M. Kuhl

Address: 6695 US Hwy 33W, Glenville, WV 26351

Phone No. _____

Comments:

Site: 4 Spacing: 369' +/- Owner: Walden D. & Deloris D. Furr

Address: 6413 US Hwy 33W, Glenville, WV 26351

Phone No. _____

Comments:

Site: 5 Spacing: 373' +/- Owner: Rondall Joe Miller

Address: 6413 US Hwy 33W, Glenville, WV 26351

Phone No. _____

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 • 1413 Childress Road
Alum Creek, WV 25003
phone: 304-756-2949
fax: 304-756-2948

Comments:

Site: 6 Spacing: 836' +/- Owner: Walden D. & Deloris D. FurrAddress: 6413 US Hwy 33W, Glenville, WV 26351

Phone No. _____

Comments:

Site: 7 Spacing: 739' +/- Owner: Carl LingerAddress: 225 Angus Dr., Glenville, WV 26351

Phone No. _____

Comments: