



**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

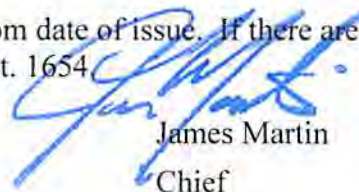
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-4700830, 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: 508825 (L. ROGERS 21) (830CR)  
Farm Name: THORNSBURY, TOM JR. & AMY  
**API Well Number: 47-4700830**  
**Permit Type: Plugging**  
Date Issued: 05/20/2014

## 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: 4-1-14  
Operator's Well  
Well No. 508825 (Lon Rogers #21)  
API Well No.: 47 047 - 00830C

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: 1709' Watershed: Bradshaw Creek  
Location: Sandy River County: McDowell Quadrangle: Bradshaw 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 Gary Kennedy  
Name: P.O. Box 268  
Address: Nimitz, WV 25978
- 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

Gary Kennedy

Date 4/1/14

## PLUGGING PROGNOSIS

**508825 Lon Rogers #21**

McDowell COUNTY, WEST VIRGINIA  
API # 47-047-00830

BY: Beau Fry  
DATE: 3/20/14

**CURRENT STATUS:**

13 3/8" csg @ 70' cmt w/ 12 sks - cts  
8 5/8" csg @ 1630' cmt w/ 400 sks - cts  
4 1/2" csg @ 4559' the well has been squeezed to surface in the 4x8 1/2" annulus - 4.5" csg has been plugged back to the depth of 1590' inside.  
1 1/2" tubing @ probable 1533' and last reported "hung"  
5/8" rods @ 1533' - 61 rods  
PBD @ 1590'

Oil Shows - None Reported FW Shows - None Reported Gas shows - None Reported  
Coal shows - 848'-1467' - Fire creek and Pocohontas seams 9,8,6,5,4,3,2, Squire Jim  
Coal Stimulation: Hole perforated @ 848'-1467'

1. Notify State Inspector, Gary Kennedy, 1-304-382-8402, 48 hrs prior to commencing operations.
2. TOOH w/ 5/8" rods.
3. Try to work 1 1/2" tubing free but only pull half of tensile strength to prevent parting the tubing. TOOH w/ 1 1/2" tubing and check condition.
4. If tubing will not pull, pull tension on 1 1/2" tubing and set in well head slips. Run primer cord in 1 1/2" tubing to 1312' and set off (do not use too much primer cord to where it will damage tubing). If tubing does not pull repeat process @ 1157', 1000' and 900'.
5. TIH w/ 1 1/2" tubing to 1590' or deeper, Set 800' C1A cement plug @ 1590' to 800'. (Lower coal seams Perfs).
6. TOOH w/ tubing let cement cure. *6" gel between cement plugs HAK*
7. TIH w/ tubing check Cement top and set C1A Cement from Cement top to Surface totally filling remainder of well w/ cement (Coal Stimulation zones, ( 8 5/8" csg pt, 13 3/8" csg pt, Upper coal seam perfs).
8. Top off as needed
9. Set Monument to WV-DEP Specifications
10. Reclaim Location & Road to WV-DEP Specifications

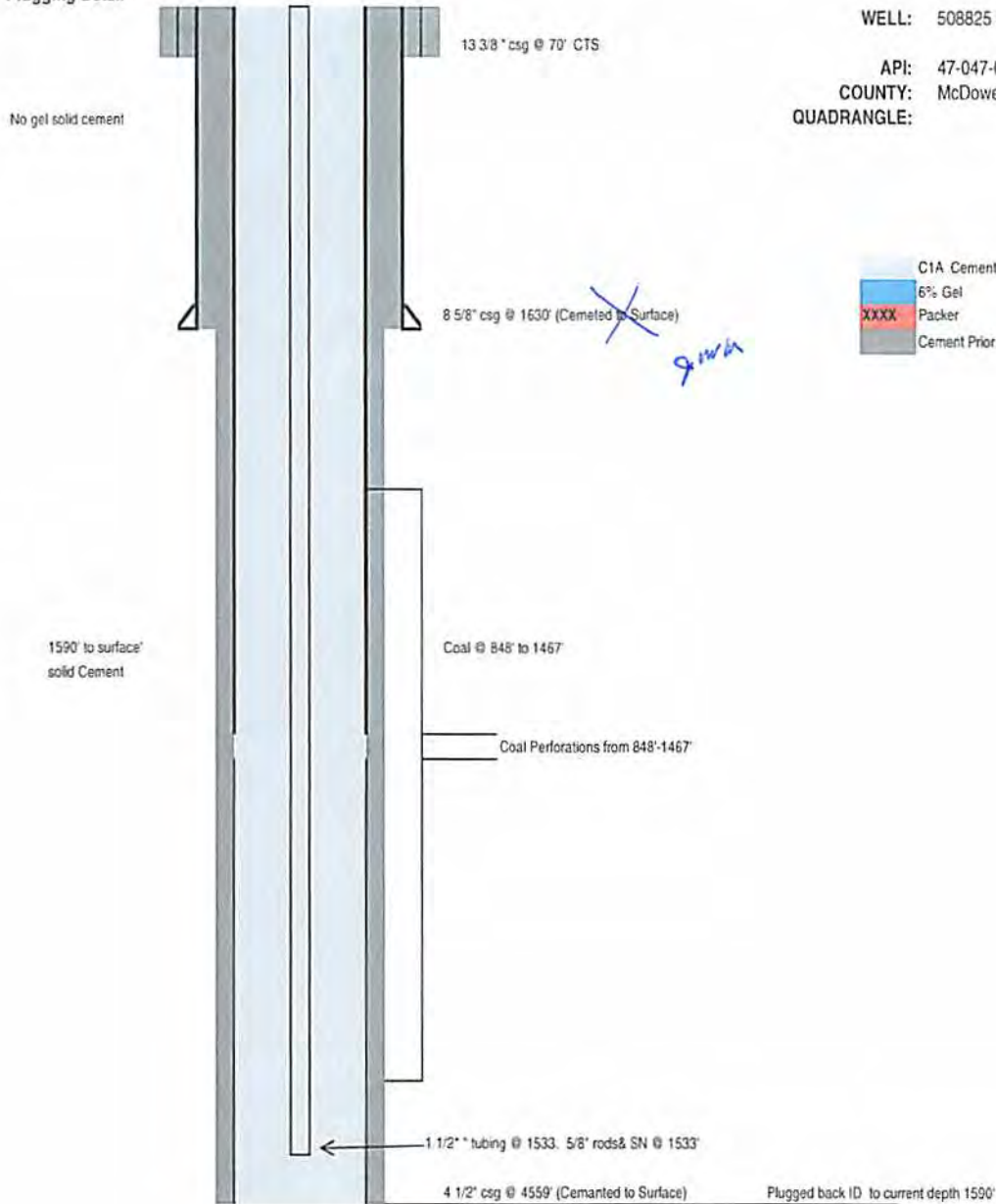
RECORDS INDICATE 8 5/8" CASING WAS NOT CEMENTED TO SURFACE, BUT 4 1/2" CASING WAS CEMENTED TO SURFACE. THEREFORE GROUT TOP OF 8 5/8" ANNULUS.

*gmm*

*HAK*  
4/7/14

# EQT Production Company

## Plugging Detail



WELL: 508825 Lon Roger # 21

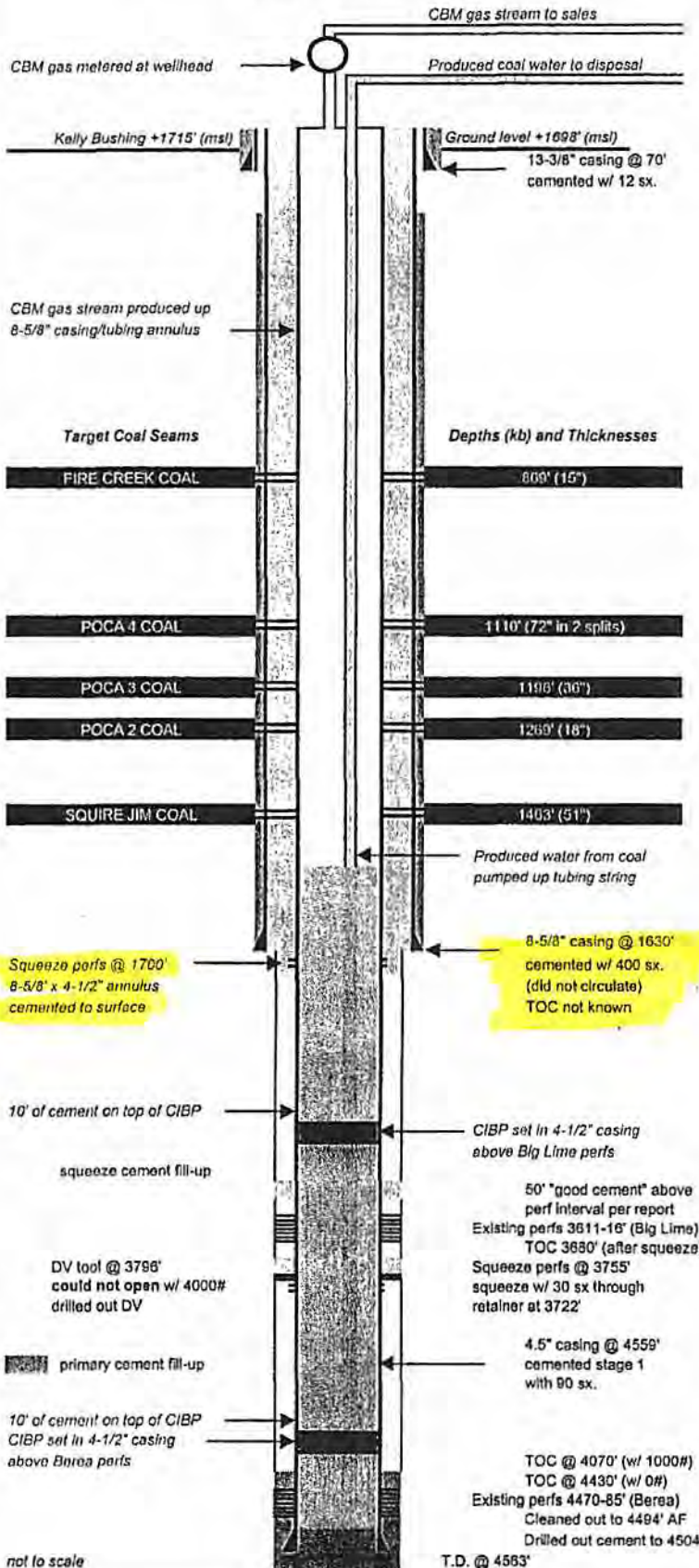
API: 47-047-00830

COUNTY: McDowell Co., W.V.

QUADRANGLE:

- CIA Cement
- 6% Gel
- XXXX Packer
- Cement Prior to plugging Operations

**WELLBORE SCHEMATIC**  
**EQUITABLE PRODUCTION CO. - ROGERS #21**  
 API Number: 4704700830



**WELL LOCATION**

District: Sandy River      Quadrangle: Bradshaw  
 Latitude: 37.3291  
 Longitude: -81.8315

**WELL COMPLETION DETAILS**

**RECEIVED**  
 Office of Oil & Gas  
 Permitting  
**SEP 06 2000**  
 WV Division of  
 Environmental Protection

Target Coal Seams	Depths (kb) and Thicknesses
FIRE CREEK COAL	809' (15")
POCA 4 COAL	1110' (72" in 2 splits)
POCA 3 COAL	1196' (30")
POCA 2 COAL	1260' (18")
SQUIRE JIM COAL	1403' (51")

Date: 4-1-14  
Operator's Well  
Well No. 508825 (Lon Rogers #21)  
API Well No.: 47 047 - 00830C

CK 17279  
10000

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

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120 Professional Place  
Address: Bridgeport, WV 26330

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Work order approved by inspector \_\_\_\_\_

RECEIVED  
Office of Oil and Gas  
Date \_\_\_\_\_

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WV Department of  
Environmental Protection

05/23/2014

47-00830C F



WELL: Rogers #21  
API # 4704700830  
MCDowell County WV

General: Plug and abandon the existing conventional reservoirs and convert to a CBM well by recompleting various coal seams behind casing.

Procedure:

1. Move in service rig, run 60' of additional tubing to get below bottom perforation.
2. Rig up service co. Mix and pump a 120' cement plug to abandon the Berea formation
3. Pull tubing to 3620', mix and pump 6% gel to fill casing from top of previous plug to bottom of tubing. Mix and pump a 120' cement plug to abandon the Big Lime formation.
4. Trip out of hole with tubing.
5. Perforate 4.5" casing at 1700'. Establish circulation and cement casing to surface with 50/50 Pozmix cement with 2% gel and 2% CaCl. Displace cement to 1600', follow plug with wireline.
6. Move in logging co., run GR and CCL logs, correlate coals and perforate.
7. Swabb hole dry.
8. Move in service co., spot acid and load hole with water, breakdown and fracture stimulate coals with a 70Q limited entry frac design placing 12,500 # 12/20 sand
9. Flow well back to a tank on a 0.5" choke
10. Clean out well to TD, Run 1.90" tubing , rods and downhole pump to 1500'
11. Install pumping unit and production facilities.
12. Turn well on line.
- 13.

A handwritten signature or set of initials in black ink, appearing to be "CBM".





4700830c P  
**RECEIVED**

MAY 19 1980

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
**Oil and Gas Division**  
**WELL RECORD-4**

OIL & GAS DIVISION  
DEPT. OF MINES

Quadrangle Bradshaw  
D# 047-  
Permit No. 0030

Rotary X Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas X  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Company <u>Ashland Exploration, Inc.</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sk.)
Address <u>P. O. Box 391, Ashland, Ky. 41101</u>				
Farm <u>Lon B. Rogers</u> Acres <u>10.193.53</u>				
Location (waters) <u>Bradshaw Creek</u>	Size <u>20-16</u>			
Well No. <u>21</u> Elev. <u>1698.4'</u>	Cond. <u>13-10" 13 3/8</u>	<u>70</u>	<u>70</u>	<u>12 sks</u>
District <u>Sandy River</u> County <u>McDowell</u>	<u>9 5/8</u>			
The surface of tract is owned in fee by <u>Goldie Baker and Tom Thornobury</u>	<u>8 5/8</u>	<u>1630</u>	<u>1630</u>	<u>400 sks</u>
Address <u>Box 12-A, Jola, WV 24830</u>	<u>7</u>			
Mineral rights are owned by <u>Pen Rogers II</u>	<u>5 1/2</u>			
Address <u>150 Bell Ct. E-Lexington</u>	<u>4 1/2</u>	<u>4559</u>	<u>4559</u>	
Drilling Commenced <u>3/10/80</u>	<u>3</u>			
Drilling Completed <u>3/21/80</u>	<u>2 2 3/8</u>	<u>4444</u>	<u>4444</u>	
Initial open flow _____ cu. ft. _____ bbls.	Lines Used			
Final production <u>919</u> M cu. ft. per day _____ bbls.				
Well open <u>4</u> hrs. before test <u>780</u> RP.				

Well treatment details:

Attach copy of cementing record.

Perf Berea 15H/4470-4485  
Frac'd w/60,000# 20/40 sand. Total fluid 546 bbls. BD @ 1350#, HTP 2300#  
ATP 1943# @ ATR of 17 B/H  
Perf Big Lime 6H/3611-3616  
Acidized w/1500 gal 15% double inhibited HCl acid @ 9 B/H @ no pressure

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand Berea & Big Lime Depth Berea 4431 - Big Lime 3240

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand			0	100		
Shale			100	155		
Sand			155	307		
Shale			307	348		
Sand & Shale			348	539		
Shale			539	612		
Sand			612	847		
Shale & Sand			847	953		
Salt Sand			953	1595		
Shale & Sand			1595	1735		
Sand & Shale			1735	1851		
Shale			1851	1935		
Sand & Shale			1935	2125		
Avis Lime			2125	2182		
Shale			2182	2257		
Sand			2257	2290		
Shale			2290	2424		
Sand & Shale			2424	2529		
Shale w/sand streaks			2529	2781		
Sand & Shale			2781	2951		
Lower Maxton			2951	3014		
Shale			3014	3083		
Little Lime			3083	3173		
Pencil Cave			3173	3240		

\* indicates Electric Log tops in the remarks section.

(over)

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4700830CP

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	(H) Gas or Water	* Remarks
Big Lino			3240	3794		
Shale			3794	3871		
Weir			3871	4086		
Shale			4086	4411		
Coffee Shale			4411	4431		
Berea			4431	4504		
Devonian Shale			4504	4563		
DTD	4566					
LTD	4563					

Date May 16 1960

APPROVED ASHLAND EXPLORATION, INC.

By *C. M. Carman*  
C. M. Carman, Production Superintendent

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05/23/2014

WR-35

API # 47- 047-00530

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm Name: Len B Rogers Operator Well No.: 630 CR (Rogers 21)  
LOCATION: Elevation: 1,714.74 Quadrangle: Bradshaw  
District: Sandy River County: HoDowell  
Latitude: 1478.42 Feet South of Dep. 37 Minutes 20 Seconds 0  
Longitude: 11,811.38 Feet West of Dep. 81 Minutes 47 Seconds 30

Company: ESQUITABLE PRODUCTION COMPANY  
P.O. Box 2347, 1710 Pennsylvania Avenue  
Charleston, WV 25322

Agent: Steve Perdue

Inspector: Ole Helnick  
Permit issued: 9/7/00  
Well work commenced: 09/20/00  
Well work completed: 11/01/00

Vertical Pivlogging \_\_\_\_\_  
Permittee granted on: \_\_\_\_\_  
Rotary Rig X Cable Rig \_\_\_\_\_  
Total Depth 4585-PSMD 1878' Feet  
Fresh water depths (ft) \_\_\_\_\_  
Salt water depths (ft) \_\_\_\_\_  
Is coal being mined in area? \_\_\_\_\_  
Coal depths (ft) \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
4-1/2"	4568'	4565'	120 est- 328 FT <sup>3</sup> 335 FT <sup>3</sup>
1-1/2"		1590'	

REC'D  
Date of: 11/01/00  
Permitting  
FEB 23 2001  
WV DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES

OPEN FLOW DATA

Producing formation Firebreath/Poco 9,8,8,5,4,3,2,1,0m Square Pay Zone Depth (ft): \_\_\_\_\_ See Attach for details

Gas: Initial open flow NS \_\_\_\_\_ Gals/hr  
Final open flow 47 \_\_\_\_\_ Hours  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock pressure 100 psig (surface pressure) after \_\_\_\_\_ psig

Second producing formation \_\_\_\_\_ Pay Zone Depth (ft): \_\_\_\_\_

Gas: Initial open flow \_\_\_\_\_ MCF/D Oil: Initial open flow \_\_\_\_\_ Gals/hr  
Final open flow \_\_\_\_\_ MCF/D Final open flow \_\_\_\_\_ Hours  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ psig

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: BLAZER ENERGY CORPORATION

By: [Signature]  
Date: 2/20/01

Bradshaw 5

**EQT Production**

1710 Pennsylvania Avenue  
Charleston, WV 25328  
(304) 348-3800

**Daily Activity Report****Wellwork/Non AFE Activity**

Well Name: 508825 WVC 830CR							
Well User ID : 508825		API Code:		Start Date :		10/11/2004	
Operator :				Operated :			
S/T/R :		WI :		NRI :			
County, St. : Unknown		Field :		Supervisor :			
Spud Date :		Dig Rig Rel Date:		Phone :			
Comp Date:		Work Type :		Workover		Rig Comp Name :	
ft. from	line and	ft. from	line	PBTB :			
Job Purpose :							

Date : 10/11/2004

Days On WellWork: 1

Activity Type : Pull tbg

Daily Detail : AM Status: MIRU, pull tbg &amp; rods.

Daily Cost : \$0.00

Cum Cost : \$0.00

Date : 10/12/2004

Days On WellWork: 2

Activity Type : Acidize

Daily Detail : AM Status: Prep to acidize. On 10/11: MIRU Petty Well Service. Ck pressure, 5 psi. TOOH w/ 61 5/8" rods + 1-1/4" pump. Found cups wore out on pump. Swbd tbg to 1530', 8 runs recovered 1-1/2 bbl. GT = TSTM thru 1". SION.

Daily Cost : \$0.00

Cum Cost : \$0.00

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WV Department of  
Environmental Protection

**EQT Production**

1710 Pennsylvania Avenue  
 Charleston, WV 25328  
 (304) 348-3800

**Daily Activity Report**

**Completion/Wellwork Activity**

Well Name : 088971 ROGERS, LON B. ET AL 21							
Well User ID :	088971		API Code:	4704700830		AFE # :	2170889712A
Operator :						Operated :	No
S/T/R :	/ /		WI :	0		NRI :	0
County, St. :	Mc Dowell, WV		Field :			AFE CC :	\$12,222
Spud Date :			Dlg Rig Rel Date:			AFE Total:	\$12,222
Comp Date:			AFE Type :	Drilling		PBTD:	
	ft. from	line and		ft. from	line	TD :	0
Job Purpose :							

Date : 10/13/2004

Activity: Swabbing

Days On Completion: 1

Remarks : Am Status: Swab acid out of tbg. Clean up. On 10/12/04: Checked pressure on tbg 0 psi & 8 psi on csg. Swabbed tbg @ 1833', recovered 1/4 bbl fluid . Swab dry. W.O. Schlumberger acid truck. Replace water line on rig, 8500'. RU Schlumberger @ 4:00pm pumped 169 gals 15.5% HCL- 1/2 tbg load csg up 336 gals HCL + 6bbis water. RD SWI.

DC : \$3,666                      CCC:                      \$3,666                      CWC:                      \$3,666

Date : 10/14/2004

Activity: RDMO Rig

Days On Completion: 2

Remarks : Am status: Swab. On 10/13/04: Checked pressure on tbg & csg =0 psi. Swabbed tbg @ 1533' & recovered 20 bbls of fluid. Tried to pull 1-1/2" tbg got hung up and couldn't get free. SWI.

DC : \$1,500                      CCC:                      \$5,166                      CWC:                      \$5,166

Date : 10/18/2004

Activity: Clean up

Days On Completion: 6

Remarks : AM Status: Clean up from acid job. On 10/15: 0 psi on tbg & csg. Swbd to to 1530', recovered 1-1/2 bbl. MIRU Schlumberger, pump 500 gal acid down csg, circ out tbg. RDMO.

DC : \$3,166                      CCC:                      \$8,332                      CWC:                      \$8,332

Date : 10/19/2004

Activity: TBOTP

Days On Completion: 7

Remarks : On 10/18: Swbd 1-1/2" to 1533', recovered 8 bbl fluid. Csg pressure @ 40 psi. TIH w/ 1-1/4" pump + 61 5/8" rods + 1-4' pony rod + 1 polish rod. Hooked well back up. Pumped up pump, RDMO. TURNED BACK OVER TO PRODUCTION.

DC : \$1,243                      CCC:                      \$9,575                      CWC:                      \$9,575

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 Environmental Protection

**EQUITABLE PRODUCTION COMPANY  
WR-35 COMPLETION REPORT - Attachment  
Well Treatment Summary**

Well: Rogers 830 CR

API# 47-047-00830

Date	10/23/2000				
Type Frac Acid, N <sub>2</sub> , Foam, Water	70 Q Foam				
Zone Treated	Firecreek Poco 9,8,6,4,5,3,2 Jim Squire				
# Perfs	25				
From - To:	848.0-1467.0				
BD Pressure @ psi	2591				
ATP psi	3750				
Avg. Rate, B=B/M, S= SCF/M	25 B Foam				
Max. Treat Press psi	4000				
ISIP psi	1450				
Frac Gradient	2.11				
10 min S-I Pressure	1100 5 min				
Material Volume					
Sand-sks	110				
Water-bbl	480				
SCF N <sub>2</sub>	831,800				
Acid-gal	1050 gal 7.5%				
NOTES:					

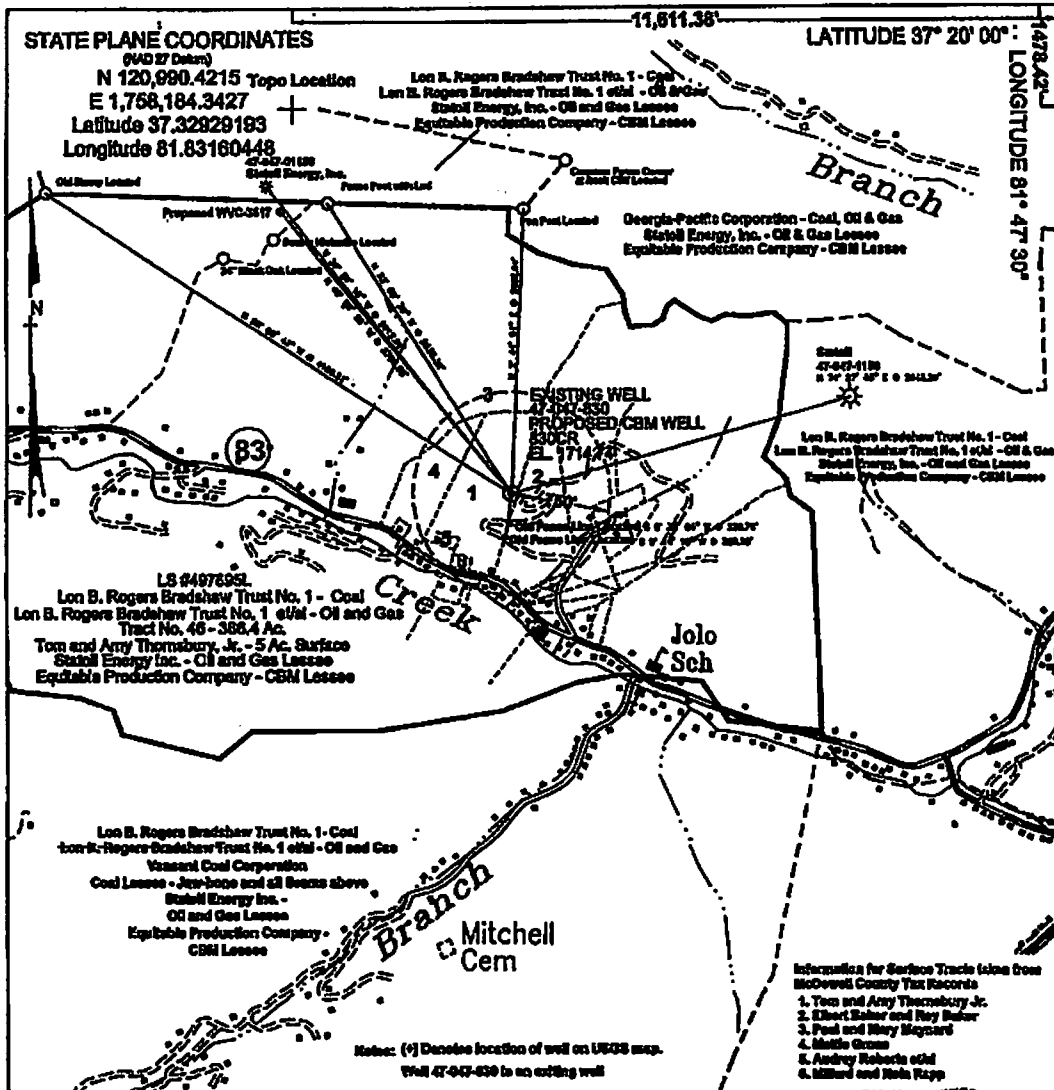
DISCOVERY  
Oilfield Services  
FEB 20 2001  
WV Dept of Environmental Protection

TOP                      BASE                      FORMATION                      REMARKS\*  
PREVIOUSLY REPORTED

NOTE: Bottom section of hole plugged w/CIBP @ 4450'+1 sx CI "A" cmt, CIBP @ 3575'+ 1 sx CI "A" cmt. Squeezed w/ 253 sx (326 FT)+260 sx (335 FT)-cmt to surface on 8x4 annulus. 2<sup>nd</sup> squeeze holes 1089-PBID @ 1575'.

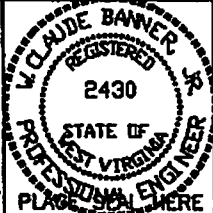
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Environmental Protection

4700830CR



FILE No. B-17-00-15P  
 DRAWING NAME 47-047-030 830GR  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1:2500  
 PROVEN SOURCE OF ELEVATION Global Positioning System (GPS)

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DEPARTMENT OF MINES.  
 (SIGNED) [Signature]  
 R.P.E. 2430 R.P.S.



**STATE OF WEST VIRGINIA**  
**DIVISION OF ENVIRONMENTAL PROTECTION**  
**OFFICE OF OIL AND GAS**  
**NITRO, WV**

DATE AUGUST 16 2000  
 OPERATOR'S WELL No. 830GR  
 API WELL No. 47 - 047 - 008300  
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS CBM LIQUID INJECTION WASTE DISPOSAL  
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1714.74 WATER SHED BRADSHAW CREEK OF DRY FORK  
 DISTRICT SANDY RIVER COUNTY MCDOWELL  
 QUADRANGLE BRADSHAW, WV

SURFACE OWNER TOM AND AMY THORNSBURY, Jr. ACREAGE ± 5 TAX MAP 224 PARCEL 63  
 CBM ROYALTY OWNER LON B. ROGERS BRADSHAW TRUST No. 1 ETAL LEASE ACREAGE 3838.13  
 LEASE No. 4978951

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION PENNSYLVANIAN COALS ESTIMATED DEPTH \_\_\_\_\_  
 WELL OPERATOR EQUITABLE PRODUCTION COMPANY DESIGNATED AGENT LARRY AYLESTOCK  
 ADDRESS 1880 EAST STONE DRIVE ADDRESS P.O. BOX 1850  
KINGSPORT, TN 37660 CLARKSBURG, WV 26302

*Bradshaw*

WW-4-A  
Revised 6/07

- 1) Date: 4-1-14
- 2) Operator's Well Number  
508825 (Lon Rogers #21)
- 3) API Well No.: 47 047 - 00830c  
State County Permit

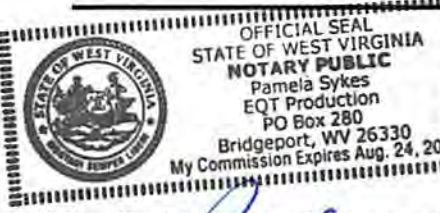
**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT**  
**DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS**  
**NOTICE AND APPLICATION TO PLUG AND ABANDON WELL**

<p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Amy C. &amp; Tom Tharnsbury Jr.</u>          Address <u>P.O. Box 347</u>  <u>Jolo, WV 24850</u></p> <p>(b) Name _____          Address _____</p> <p>(c) Name _____          Address _____</p>	<p>5) (a) Coal Operator:          Name <u>None</u>          Address _____</p> <p>(b) Coal Owner(s) with Declaration          Name <u>LBR Holdings LLC</u>  <u>P.O. Box 22427</u>          Address <u>Lexington, KY 40522-2427</u></p> <p>(c) Coal Lessee with Declaration          Name <u>None</u>          Address _____</p>
<p>6) Inspector <u>Gary Kennedy</u>          Address <u>P.O. Box 268</u>  <u>Nimitz, WV 25978</u>          Telephone <u>304-382-8402</u></p>	

**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  
 Name: Victoria J. Roark  
 Title: Permitting Supervisor  
 Address: PO Box 280  
Bridgeport, WV 26330  
 Telephone: (304) 848-0076

Subscribed and sworn before me this 1 day of April, 2014  
 My Commission Expires: 8-24-22  
 Notary Public \_\_\_\_\_ of Oil and Gas

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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**Amy C. & Tom Tharnsbury Jr.**  
**P.O. Box 347**  
**Jolo, WV 24850**  
 508825 plug

PS Form 3800, August 2005 See Reverse for Instructions

Amy C. & Tom Tharnsbury Jr.  
P.O. Box 347  
Jolo, WV 24850  
508825 plug

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

**SENDER: COMPLETE THIS SECTION**

1. Article Addressed to:  
 Amy C. & Tom Tharnsbury Jr.  
 P.O. Box 347  
 Jolo, WV 24850  
 508825 plug

2. Article Number  
 (Transfer from service label)  
 7013 2630 0001 4239 3277

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

4. Restricted Delivery? (Extra Fee)  
 Yes  
 No

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

A. Signature  X  
 B. Received by (Printed Name)  
 C. Date of Delivery  
 Agent  
 Addressee

**COMPLETE THIS SECTION ON DELIVERY**

PS Form 3811, July 2013 Domestic Return Receipt

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WV Department of  
Environmental Protection  
05/23/2014

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Total Post		

Sent To  
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 or PO Box #  
 City, State, ZIP+4®

**LBR Holdings LLC**  
**P.O. Box 22427**  
**Lexington, KY 40522-2427**  
 508825 plug

PS Form 3800, August 2006 See Reverse for Instructions

LBR Holdings LLC  
P.O. Box 22427  
Lexington, KY 40522-2427  
508825 plug

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

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature  X  
 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:

**COMPLETE THIS SECTION**

1. Article Addressed to:  
**LBR Holdings LLC**  
**P.O. Box 22427**  
**Lexington, KY 40522-2427**  
 508825 plug

2. Article Number **7013 2630 0001 4239 3307**  
*(Transfer from service label)*

3. Service Type  
 Certified Mail  
 Registered Mail  
 Return Receipt for Merchandise  
 Priority Mail Express™

4. Restricted Delivery? (Extra Fee)  Yes  No  
 Insured Mail  
 Collect on Delivery

Domestic Return Receipt PS Form 3811, July 2013

05/23/2014

**EQT**

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

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Gary Kennedy  
P.O. Box 268  
Nimitz, WV 25978



4700830CP

05/23/2014

4700830c P

WW-9  
Revised 2/03

Page \_\_\_\_ of \_\_\_\_  
2) Operator's Well Number  
508825 (Lon Rogers #21)  
3) API Well No.: 47 047 - 00830c

**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: Bradshaw Creek Quadrangle: Bradshaw 7.5'  
Elevation: 1709' County: McDowell District: Sandy River

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? \_\_\_\_\_

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*

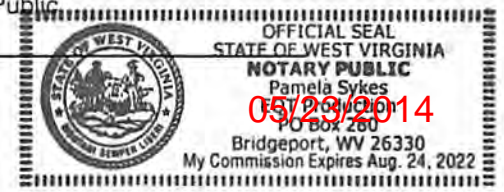
Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

Subscribed and sworn before me this 1 day of April, 2014

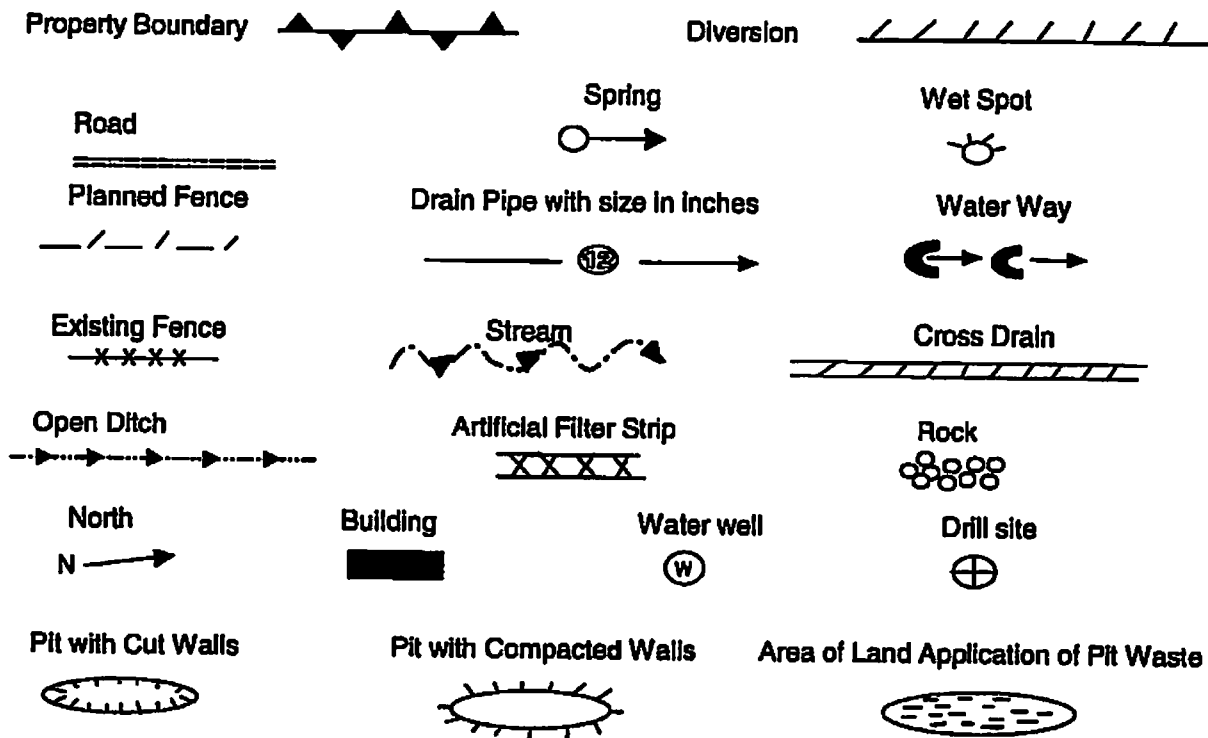
*Pamela Sykes*  
My Commission Expires 8-24-22

Notary Public



OPERATOR'S WELL NO.:  
508825 (Lon Rogers #21)

**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: Jay Kennedy

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

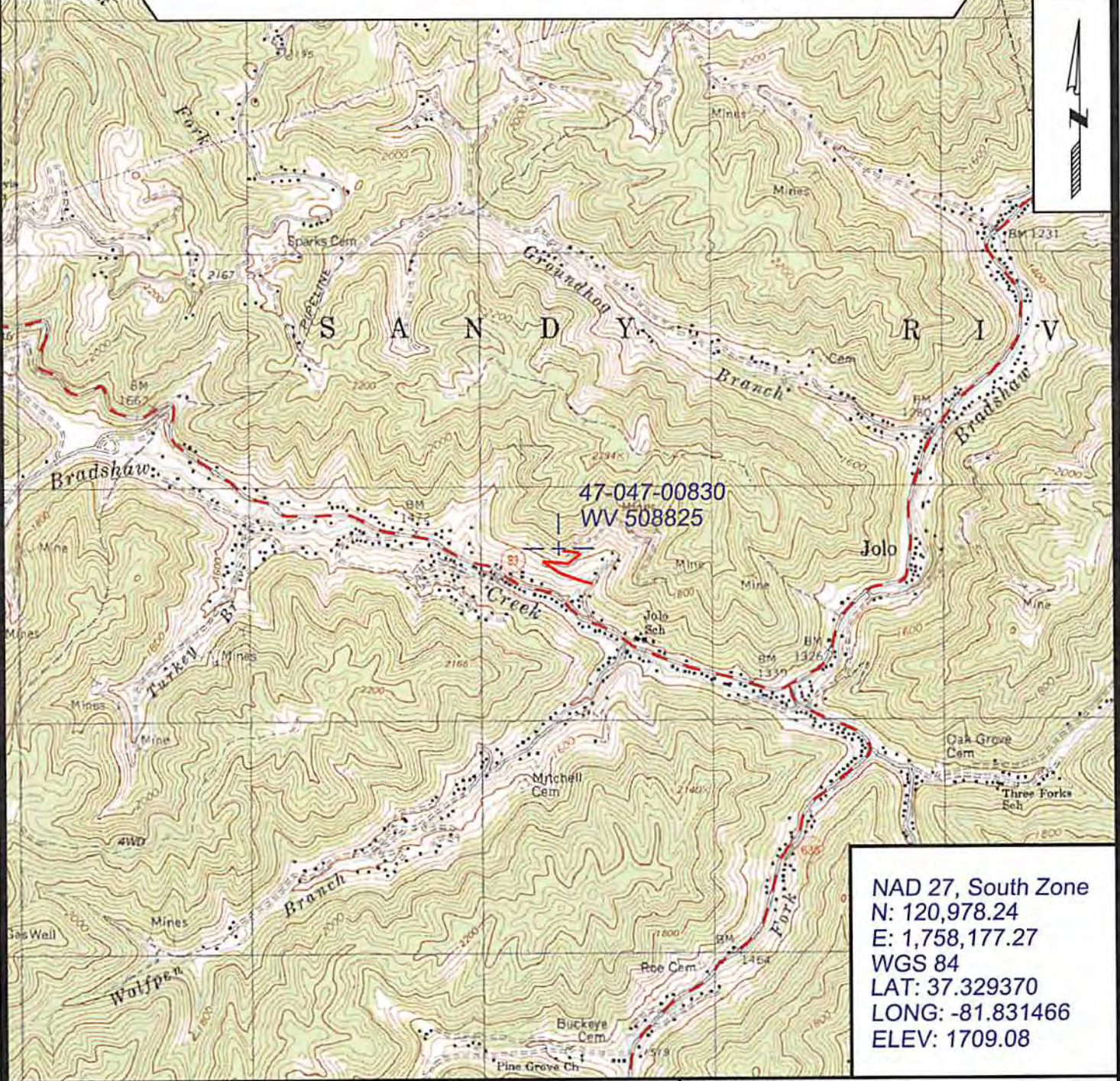
Title: Inspector Date: 4/7/14  
Field Reviewed? Yes  No

4700830 P

Topo Quad: Bradshaw 7.5' Scale: 1" = 2000'  
 County: McDowell Date: March 28, 2014  
 District: Sandy River Project No: 20-37-00-08

47-047-00830 WV 508825 (L. Rogers # 21)

Topo



NAD 27, South Zone  
 N: 120,978.24  
 E: 1,758,177.27  
 WGS 84  
 LAT: 37.329370  
 LONG: -81.831466  
 ELEV: 1709.08



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

05/23/2014

WW-7  
8-30-06



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

API: 47-047-00830c WELL NO.: WV 508825 (L. Rogers # 21)

FARM NAME: Lon B. Rogers, et al.

RESPONSIBLE PARTY NAME: EQT Production Company

COUNTY: McDowell DISTRICT: Sandy River

QUADRANGLE: Bradshaw 7.5'

SURFACE OWNER: Tom, Jr. & Amy Thornsburry

ROYALTY OWNER: Gregory Poulos, et al.

UTM GPS NORTHING: 4131736

UTM GPS EASTING: 426339 GPS ELEVATION: 521 m (1709 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.

Signature  
4/1/14  
Date

PS # 2180  
Title

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WV Department of  
Environmental Protection

05/23/2014

47005300 P

Topo Quad: Bradshaw 7.5'

Scale: 1" = 2000'

County: McDowell

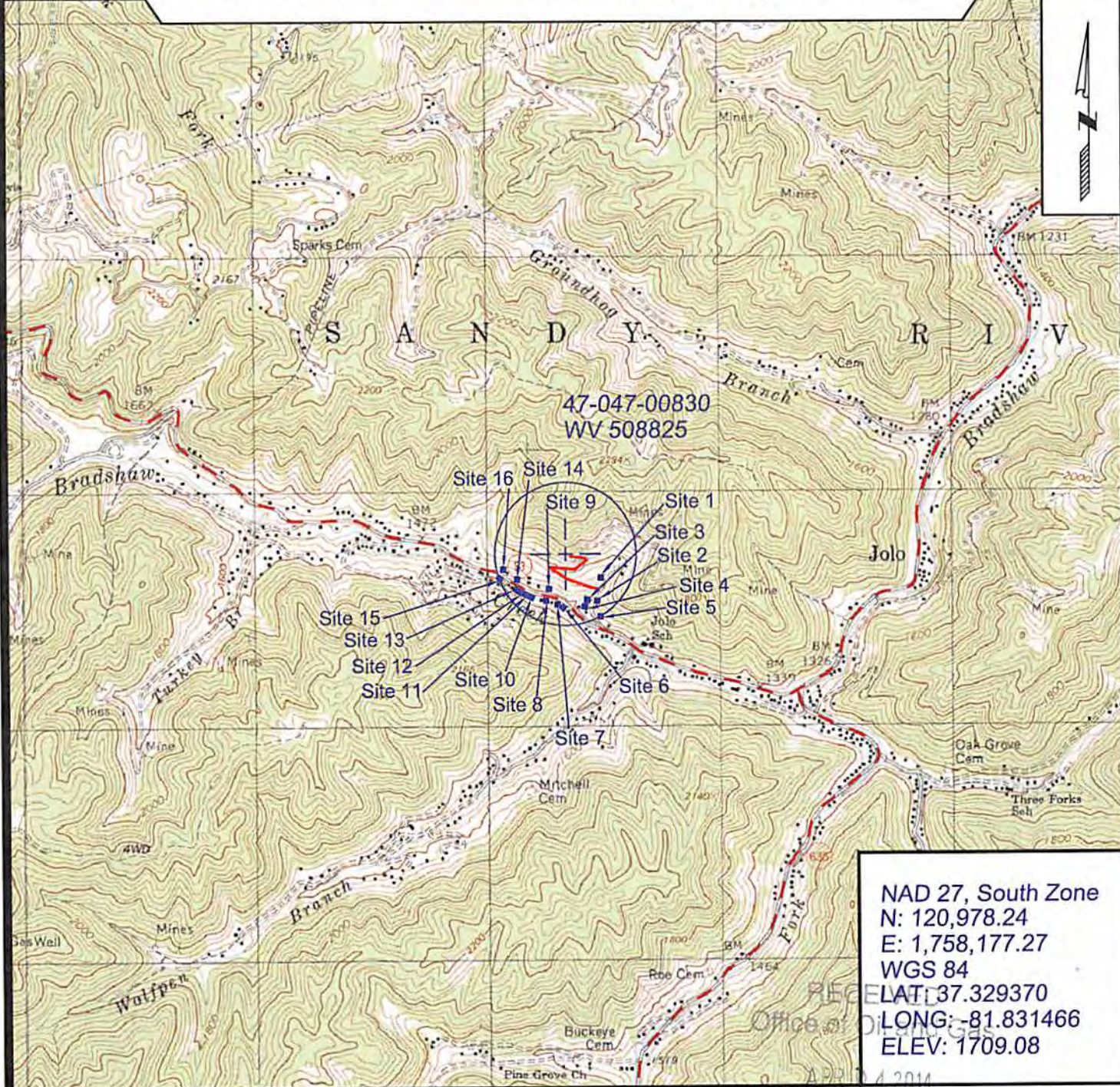
Date: March 28, 2014

District: Sandy River

Project No: 20-37-00-08

Water

47-047-00830 WV 508825 (L. Rogers # 21)



NAD 27, South Zone  
 N: 120,978.24  
 E: 1,758,177.27  
 WGS 84  
 LAT: 37.329370  
 LONG: -81.831466  
 ELEV: 1709.08



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**

1-800-482-8606  
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 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

PREPARED FOR:

WV Department  
**EQT Production Company**  
 Environmental Protection  
 P.O. Box 280  
 Bridgeport, WV 26330

05/23/2014





### POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY  
LEASE NAME AND WELL No. L. Rogers # 21 WV 508825 (47-047-00830)

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: 597' +/- Owner: Charles Edward & Tenia Vance  
Address: PO Box 414, Jolo, WV 24850 Phone No. \_\_\_\_\_  
Comments:

Site: 2 Spacing: 791' +/- Owner: Della Branscomb  
Address: Box 63, Jolo, WV 24850 Phone No. 304-967-5753.  
Comments:

Site: 3 Spacing: 706' +/- Owner: Russell Vance  
Address: Jolo, WV 24850 Phone No. 304-967-9047.  
Comments:

Site: 4 Spacing: 781' +/- Owner: Bryan Poore  
Address: PO Box 254, Jolo, WV 24850 Phone No. 304-967-9184.  
Comments:

Site: 5 Spacing: 1012' +/- Owner: Remly Lee & Janet Shamblin  
Address: PO Box 45, Bradshaw, WV 24817 Phone No. \_\_\_\_\_  
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

RECEIVED  
Office of Oil and Gas  
P.O. Box 108 • 1413 Childress Road  
Alum Creek, WV 25003  
phone: 304-756-2949  
fax: 304-756-2948

Site: 6 Spacing: 798' +/- Owner: Teresa Estep  
 Address: PO Box 283, Jolo, WV 24850 Phone No. 304-967-7697.  
 Comments:

Site: 7 Spacing: 671' +/- Owner: Steven Hagerman  
 Address: 13195 Marshall Highway, Jolo, WV 24850 Phone No. 304-967-5676.  
 Comments:

Site: 8 Spacing: 660' +/- Owner: Larry Kelly  
 Address: PO Box 178 Jolo, WV 24850 Phone No. \_\_\_\_\_  
 Comments:

Site: 9 Spacing: 534' +/- Owner: Amie Thornsbery  
 Address: PO Box 347, Jolo, WV 24850 Phone No. 304-967-7056.  
 Comments:

Site: 10 Spacing: 725' +/- Owner: Michael & Kimberly Poore  
 Address: Rt 83 Box 14, Jolo, WV 24850 Phone No. \_\_\_\_\_  
 Comments:

Site: 11 Spacing: 789' +/- Owner: Tiny Vance  
 Address: PO Box 120, Jolo, WV 24850 Phone No. \_\_\_\_\_  
 Comments:

Site: 12 Spacing: 817' +/- Owner: Edgar L. & Diana L. Cline  
 Address: Rt 3 Box 311, Panther, WV 24872 Phone No. \_\_\_\_\_  
 Comments:

Site: 13 Spacing: 855' +/- Owner: Ellis Jim & Maude Cooper  
 Address: PO Box 176, Jolo, WV 24850 Phone No. \_\_\_\_\_  
 Comments:

Site: 14 Spacing: 765' +/- Owner: Rocky Vance  
 Address: PO Box 120, Jolo, WV 24850 Phone No. 304-967-7929.  
 Comments:

Site: 15 Spacing: 939' +/- Owner: Euilh Hubbard  
 Address: PO Box 344, Bradshaw, WV 24817 Phone No. 304-967-9318.  
 Comments:

Site: 16 Spacing: 871' +/- Owner: Mattie Gross  
 Address: PO Box 475, Jolo, WV 24850 Phone No. \_\_\_\_\_ APR 04 2014  
 Comments:

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 Office of Oil and Gas

WV Department of  
 Environmental Protection