



**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](http://www.dep.wv.gov)

January 28, 2015

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-3902060, 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: 47  
Farm Name: EASTERN G & F  
**API Well Number: 47-3902060**  
**Permit Type: Plugging**  
Date Issued: 01/28/2015

**Promoting a healthy environment.**

**01/30/2015**

## 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.

29 02060P CK 18783 \$100<sup>00</sup>

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

Date: January 14, 2015  
Operator's Well  
Well No. 042300 (Eastern Gas & Fuel #47)  
API Well No.: 47 039 - 02060

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: 1576 ft. Watershed: Jarretts Branch  
Location: Cabin Creek County: Kanawha Quadrangle: Eskdale  
District: \_\_\_\_\_

6) Well Operator EQT Production Company  
120 Professional Place  
Address: Bridgeport, WV 26330

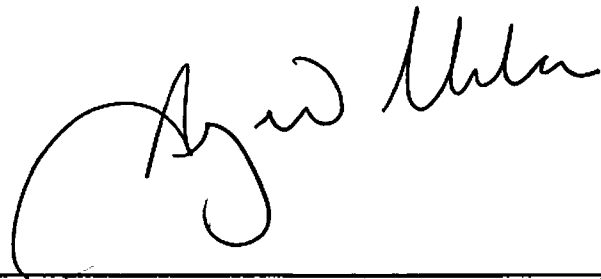
7) Designated Agent: Rex C. Ray  
Address: 120 Professional Place  
Bridgeport, WV 26330

8) Oil & Gas Terry Urban  
Name: P. O. Box 1207  
Address: Clendenin, WV 25045

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.**

*SEE Changes to plugging prog.  
due changes may happen*



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 1-20-15

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JAN 20 2015

WV Department of Environmental Protection  
01/30/2015



3902060P

APN 2060

Form OG-10



STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

10-24-15

Quadrangle Montgomery

Permit No. KAN-2060

WELL RECORD

Oil or Gas Well Gas

Company ASHLAND OIL & REFINING COMPANY  
 Address Box 1913, Charleston, W. Va. 25327  
 Farm Eastern Gas & Fuel Associates Acres 22.521  
 Location (waters) Jarrets Br. of Fourmile Fk. of Paints Creek Size 10  
 Well No. 47 - 4230 Elev. 1590' Kind of Packer 10  
 District Cabin Creek County Kanawha Casing and Tubing 13 3/8" Used in Drilling 24' Left in Well 24'  
 The surface of tract is owned in fee by Eastern Gas & Fuel Assoc., 1701 Koppers Bldg. Pittsburgh, Pa. 15219 Size of 8 1/2  
 Mineral rights are owned by Same Address 53/16 Depth set 1875'  
 Drilling commenced September 23, 1965 4 1/2" 2929' 2929' Perf. top 2774'  
 Drilling completed September 30, 1965 2 3/8" 2740' 2740' Perf. bottom 2784'  
 Date Shot From To Liners Used Perf. top 2734'  
 With Perf. bottom 2304'  
 Open Flow /10ths Water in Inch 13 3/8" 25 sx.  
/10ths Merc. in Inch 4 1/2" SIZE 50 SX No. Ft. 60 Cu. Ft. 4 172"  
 Volume Cu. Ft. CASING CEMENTED 7" No. Ft. 60 Cu. Ft. 4 172"  
 Rock Pressure lbs. hrp. COAL WAS ENCOUNTERED AT 54-58 FEET 191-194 FEET  
 Oil FRACTURED bbls., 1st 24 hrs. WELL FRACTURED 10-8-65 with 500 gals. mud acid, 346-349 FEET 406-409 FEET 510-514 FEET 906-910 FEET  
55,000# sand, 648 bbls. water & 75,000 std. cu. ft. nitrogen, 2774-2784', 1157 FEET 60 INCHES FEET INCHES  
WELL FRACTURED 10-13-65 with 500 gals. mud acid, 25,000# sand, 630 bbls. treated water abd 85,000 std. cu. ft. nitrogen 2294-2304'.  
 RESULT AFTER TREATMENT 16/10 Merc. 3" - 1,400MCF Maxton; 105/10 Merc. 2" 1,594MCF - Weir.  
 ROCK PRESSURE AFTER TREATMENT 72 hours 480 p.s.i. Maxton - 625 p.s.i. Weir  
 Fresh Water Feet Salt Water Feet

| Formation        | Color | Hard or Soft | Top  | Bottom | Oil, Gas or Water | Depth | Remarks |
|------------------|-------|--------------|------|--------|-------------------|-------|---------|
| Sand             |       |              | 0    | 42     |                   |       |         |
| Shale            |       |              | 46   | 54     |                   |       |         |
| Coal             |       |              | 54   | 58     |                   |       |         |
| Sand & Shale     |       |              | 58   | 110    |                   |       |         |
| Sand             |       |              | 110  | 125    |                   |       |         |
| Sand & Shale     |       |              | 125  | 191    |                   |       |         |
| Coal             |       |              | 191  | 194    |                   |       |         |
| Sand & Shale     |       |              | 194  | 346    |                   |       |         |
| Coal             |       |              | 346  | 349    |                   |       |         |
| Sand & Shale     |       |              | 349  | 406    |                   |       |         |
| Coal             |       |              | 406  | 409    |                   |       |         |
| Sand & Shale     |       |              | 409  | 510    |                   |       |         |
| Coal             |       |              | 510  | 514    |                   |       |         |
| Shale & Red Rock |       |              | 514  | 595    |                   |       |         |
| Sand             |       |              | 595  | 672    |                   |       |         |
| Shale            |       |              | 672  | 718    |                   |       |         |
| Sand & Shale     |       |              | 718  | 906    |                   |       |         |
| Coal             |       |              | 906  | 910    |                   |       |         |
| Sand & Shale     |       |              | 910  | 1022   |                   |       |         |
| Sand             |       |              | 1022 | 1157   |                   |       |         |
| Coal             |       |              | 1157 | 1162   |                   |       |         |
| Sand             |       |              | 1162 | 1297   |                   |       |         |
| Sand & Shale     |       |              | 1297 | 1345   |                   |       |         |
| Sand             |       |              | 1345 | 1539   |                   |       |         |
| Sand & Shale     |       |              | 1539 | 1689   |                   |       |         |
| Shale            |       |              | 1689 | 1753   |                   |       |         |
| Shale & Sand     |       |              | 1753 | 1900   |                   |       |         |
| Red Rock & Shale |       |              | 1900 | 1955   |                   |       |         |
| Sand & Shale     |       |              | 1955 | 2157   |                   |       |         |
| Red Rock & Shale |       |              | 2157 | 2257   |                   |       |         |

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01/30/2015

| Formation          | Color | Hard or Soft | Top / | Bottom | Oil Gas or Water    | Depth Found             | Remarks |
|--------------------|-------|--------------|-------|--------|---------------------|-------------------------|---------|
| Maxton Sand        |       |              | 2257  | 2327   |                     |                         |         |
| Shale              |       |              | 2327  | 2340   |                     |                         |         |
| Little Lime        |       |              | 2340  | 2380   |                     |                         |         |
| Shale & Lime       |       |              | 2380  | 2418   |                     |                         |         |
| Big Lime           |       |              | 2418  | 2665   |                     |                         |         |
| Red Rock           |       |              | 2665  | 2710   |                     |                         |         |
| Shale              |       |              | 2710  | 2765   |                     |                         |         |
| Yell Sand          |       |              | 2765  | 2798   |                     |                         |         |
| Shale & Sand       |       |              | 2798  | 2950   |                     |                         |         |
| TOTAL DEPTH        |       |              |       | 2950'  |                     |                         |         |
| Electric Log Tops: |       |              |       |        | Checked for gas at: |                         |         |
| Maxton             |       |              | 2252  |        |                     | 2330' 20' 0 W 2" 189MCF |         |
| Little Lime        |       |              | 2338  |        |                     | 2427' 18' 0 W 2" 179MCF |         |
| Big Lime           |       |              | 2420  | 2664   |                     | 2690' 22' 0 W 2" 196MCF |         |
| Yell               |       |              | 2765  |        |                     | 2793' 28' 0 W 2" 223MCF |         |
| Lower Yell         |       |              | 2850  |        |                     | 2813' 28' 0 W 2" 223MCF |         |
|                    |       |              |       |        |                     | 2950' 25' 0 W 2" 211MCF |         |

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WV Department of  
Environmental Protection

Date October 27, 19 65.

APPROVED ASHLAND OIL & REFINING COMPANY, Owner

By K. E. Lala  
Division (Title) Production Supt.

01/30/2015



# McCullough

## BOND CEMENT LOG

FILING NO. HCBT-42049

COMPANY ASHLAND OIL & REFINING COMPANY

WELL EASTERN GAS & FUEL #47-4230

FIELD PAINT CREEK

COUNTY KANAWHA STATE WEST VIRGINIA

LOCATION: JARRELS BRANCH OF FOUR MILE FORK OF PAINT CREEK.

OTHER SERVICES

SEC. TWP. RGE.

PERMANENT DATUM G.L. ELEV. 1578'

LOG MEASURED FROM 12' ABOVE PERMANENT DATUM KB. 1590'

DRILLING MEASURED FROM 12' ABOVE G. L. DP. 1589'

GL 1578'

DATE 10-7-65

RUN NO. 1

TYPE LOG BOND CEMENT - TT

DEPTH—DRILLER 2935'

DEPTH—LOGGER 2916.5'

BOTTOM LOGGED INTERVAL 2914'

TOP LOGGED INTERVAL 1800'

TYPE FLUID IN HOLE WATER

SALINITY PPM CL.

DENSITY LB/GAL.

LEVEL FULL

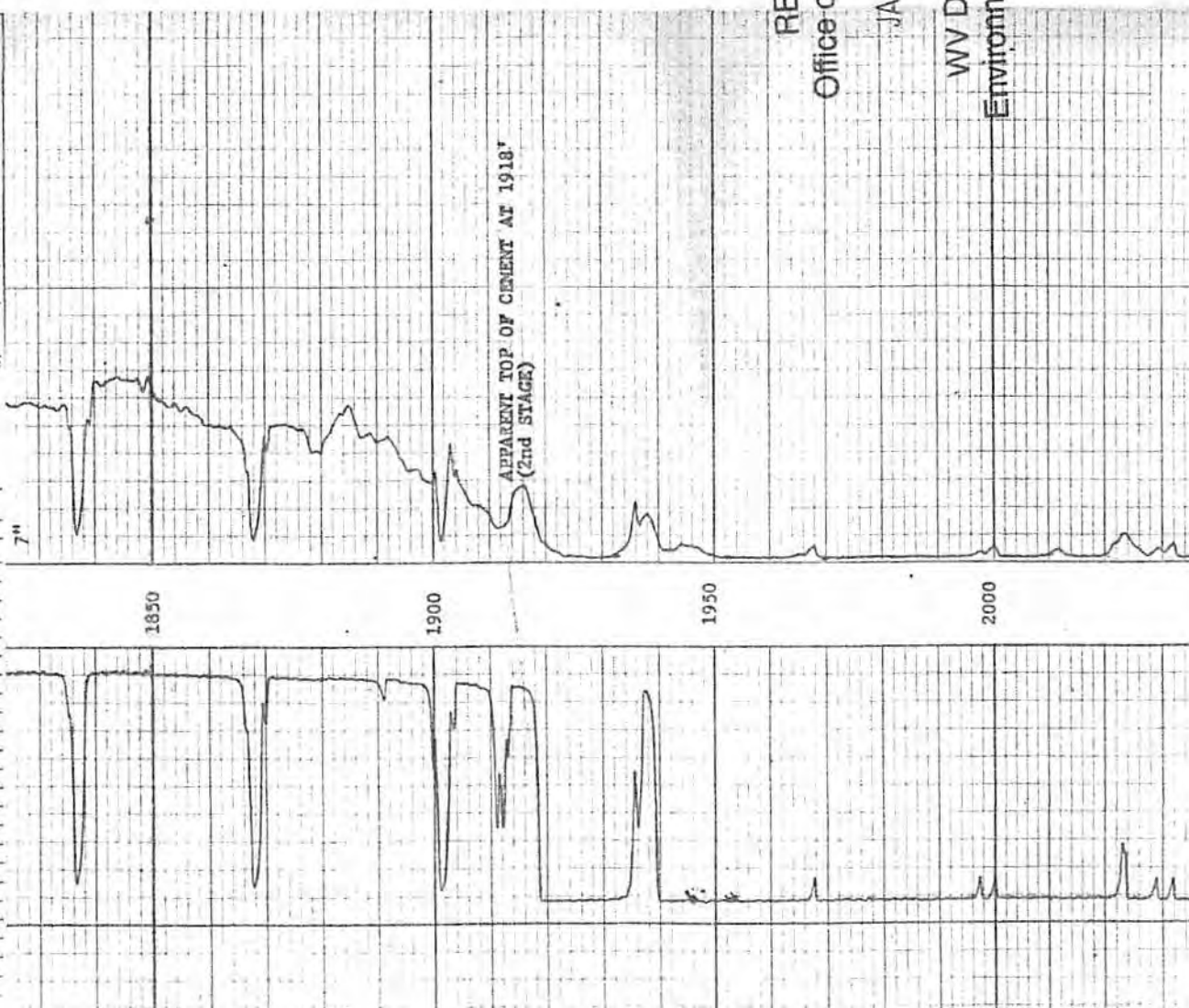
MAX. REC. TEMP. DEG. F

OPR. RIG TIME

RECORDED BY FOLEY

WITNESSED BY MR. MIDKIFF

| RUN NO. | BORE HOLE RECORD |       |       |       | CASING RECORD |      |       |  |
|---------|------------------|-------|-------|-------|---------------|------|-------|--|
|         | BIT              | FROM  | TO    | SIZE  | WGT.          | FROM | TO    |  |
| 1       | 6-1/4            | 1885' | 2935' | 7"    | 20            | 0'   | 1883' |  |
|         |                  |       |       | 4-1/2 | 9.5           | 0'   | 2935' |  |



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3902060P

KAN 2060

Form OG-10



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

10-25-15  
115

Quadrangle Montgomery

Permit No. KAN-2060

**WELL RECORD**

Oil or Gas Well Gas  
(KIND)

Company ASHLAND OIL & REFINING COMPANY  
 Address Box 1913, Charleston, W. Va. 25327  
 Farm Eastern Gas & Fuel Associates Acres 22.521  
 Location (waters) Jarrets Br. of Fourmile Fk. of Paint Creek  
 Well No. 47 - 4230 Elev. 1590' KB 16  
 District Cabin Creek County Kanawha 13 3/8" 24' 24' Kind of Packer  
 The surface of tract is owned in fee by Eastern Gas & Fuel 10 Size of  
 Assoc. 1701 Koppers Bldg. Pittsburgh, Pa. 15219 8 1/4"  
 Mineral rights are owned by Same 6 1/2 7" OD 1875' 1875' Depth set  
 Address 53/16  
 Drilling commenced September 23, 1965 4 1/2" 2929' 2929' Perf. top 2774'  
 Drilling completed September 30, 1965 3 3/8" 2740' 2740' Perf. bottom 2764'  
 Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_ Liners Used \_\_\_\_\_ Perf. top 2234'  
 With \_\_\_\_\_ Perf. bottom 2304'  
 Open Flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
 \_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
 Volume \_\_\_\_\_ Cu. Ft. CASING CEMENTED 7" 13 3/8" 25 sx. 50 No. Ft. \_\_\_\_\_ Date  
4 172" 60 cu. ft.  
 Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hr.  
 Oil FRACTURED \_\_\_\_\_ bbls., 1st 24 hrs. COAL WAS ENCOUNTERED AT 54-58 FEET 191-194 FEET  
 WELL FRACTURED 10-8-65 with 500 gals. mud acid, 346-349 FEET 406-409 FEET 510-514 FEET 906-910 FEET  
56,000# sand, 648 bbls. water & 75,000 std. cu. ft. nitrogen. 2774-2784' 1157 FEET 60 INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 WELL FRACTURED 10-13-65 with 500 gals. mud acid, 25,000# sand, 630 bbls. treated  
 water abd 85,000 std. cu. ft. nitrogen 2294-2304'.  
 RESULT AFTER TREATMENT 16/10 Merc. 3" - 1,400MCF Maxton; 105/10 Merc. 2" 1,594MCF - Weir.  
 ROCK PRESSURE AFTER TREATMENT 72 hours 480 p.s.i. Maxton - 625 p.s.i. Weir  
 Fresh Water \_\_\_\_\_ Feet Salt Water \_\_\_\_\_ Feet

| Formation        | Color | Hard or Soft | Top  | Bottom | Oil, Gas or Water | Depth | Remarks |
|------------------|-------|--------------|------|--------|-------------------|-------|---------|
| Sand             |       |              | 0    | 42     |                   |       |         |
| Shale            |       |              | 46   | 54     |                   |       |         |
| Coal             |       |              | 54   | 58     |                   |       |         |
| Sand & Shale     |       |              | 58   | 110    |                   |       |         |
| Sand             |       |              | 110  | 125    |                   |       |         |
| Sand & Shale     |       |              | 125  | 191    |                   |       |         |
| Coal             |       |              | 191  | 194    |                   |       |         |
| Sand & Shale     |       |              | 194  | 346    |                   |       |         |
| Coal             |       |              | 346  | 349    |                   |       |         |
| Sand & Shale     |       |              | 349  | 406    |                   |       |         |
| Coal             |       |              | 406  | 409    |                   |       |         |
| Sand & Shale     |       |              | 409  | 510    |                   |       |         |
| Coal             |       |              | 510  | 514    |                   |       |         |
| Shale & Red Rock |       |              | 514  | 595    |                   |       |         |
| Sand             |       |              | 595  | 672    |                   |       |         |
| Shale            |       |              | 672  | 718    |                   |       |         |
| Sand & Shale     |       |              | 718  | 906    |                   |       |         |
| Coal             |       |              | 906  | 910    |                   |       |         |
| Sand & Shale     |       |              | 910  | 1022   |                   |       |         |
| Sand             |       |              | 1022 | 1157   |                   |       |         |
| Coal             |       |              | 1157 | 1162   |                   |       |         |
| Sand             |       |              | 1162 | 1297   |                   |       |         |
| Sand & Shale     |       |              | 1297 | 1345   |                   |       |         |
| Sand             |       |              | 1345 | 1539   |                   |       |         |
| Sand & Shale     |       |              | 1539 | 1689   |                   |       |         |
| Shale            |       |              | 1689 | 1753   |                   |       |         |
| Shale & Sand     |       |              | 1753 | 1900   |                   |       |         |
| Red Rock & Shale |       |              | 1900 | 1955   |                   |       |         |
| Sand & Shale     |       |              | 1955 | 2157   |                   |       |         |
| Red Rock & Shale |       |              | 2157 | 2257   |                   |       |         |



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| Formation          | Color | Hard or Soft | Top / | Bottom | Oil, Gas or Water   | Depth Found | Remarks            |
|--------------------|-------|--------------|-------|--------|---------------------|-------------|--------------------|
| Maxton Sand        |       |              | 2257  | 2327   |                     |             |                    |
| Shale              |       |              | 2327  | 2340   |                     |             |                    |
| Little Lime        |       |              | 2340  | 2380   |                     |             |                    |
| Shale & Lime       |       |              | 2380  | 2418   |                     |             |                    |
| Big Lime           |       |              | 2418  | 2665   |                     |             |                    |
| Red Rock           |       |              | 2665  | 2710   |                     |             |                    |
| Shale              |       |              | 2710  | 2765   |                     |             |                    |
| Weir Sand          |       |              | 2765  | 2798   |                     |             |                    |
| Shale & Sand       |       |              | 2798  | 2950   |                     |             |                    |
| TOTAL DEPTH        |       |              |       | 2950'  |                     |             |                    |
| Electric Log Tops: |       |              |       |        | Checked for gas at: |             |                    |
| Maxton             |       |              | 2252  |        |                     | 2330'       | 20' 10 W 2" 189MCF |
| Little Lime        |       |              | 2338  |        |                     | 2427'       | 18' 10 W 2" 179MCF |
| Big Lime           |       |              | 2420  | 2664   |                     | 2690'       | 22' 10 W 2" 196MCF |
| Weir               |       |              | 2765  |        |                     | 2793'       | 28' 10 W 2" 223MCF |
| Lower Weir         |       |              | 2850  |        |                     | 2813'       | 28' 10 W 2" 223MCF |
|                    |       |              |       |        |                     | 2950'       | 25' 10 W 2" 211MCF |

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Date October 27, 1965

APPROVED ASHLAND OIL & REFINING COMPANY, Owner


By R. T. Sala  
Division (Title) Production Supt.

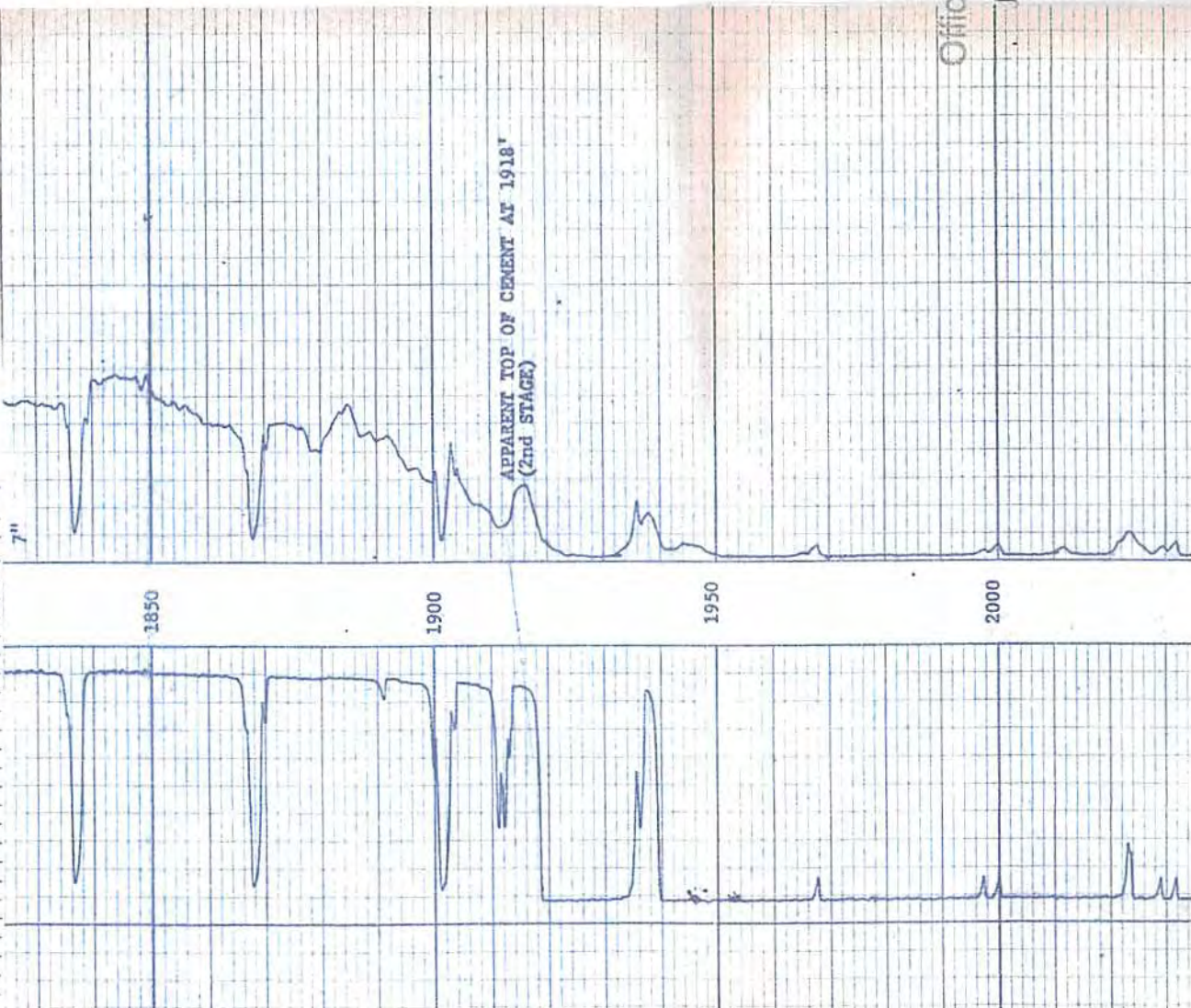
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JAN 16 2015

|   |                           |   |                     |               |      |      |       |
|---|---------------------------|---|---------------------|---------------|------|------|-------|
|  <h1>McCullough</h1> |                           | <b>BOND CEMENT LOG</b>                              |                     |               |      |      |       |
|   |                           | FILING NO. HCRT-42049                               |                     |               |      |      |       |
| COMPANY   |                           | ASHLAND OIL & REFINING COMPANY                      |                     |               |      |      |       |
| WELL  |                           | EASTERN GAS & FUEL #47-4230                         |                     |               |      |      |       |
| FIELD   |                           | PAINT CREEK   |                     |               |      |      |       |
| COUNTY  |                           | KANAWHA   | STATE WEST VIRGINIA |               |      |      |       |
| LOCATION:   |                           | JARRELS BRANCH OF FOUR MILE<br>FORK OF PAINT CREEK. |                     |               |      |      |       |
| OTHER SERVICES  |                           |   |                     |               |      |      |       |
| PERMANENT DATUM   | G. L.                     | ELEV.   | 1578'               |               |      |      |       |
| LOG MEASURED FROM   | 12' ABOVE PERMANENT DATUM |   | KB. 1590'           |               |      |      |       |
| DRILLING MEASURED FROM  | 12' ABOVE G. L.           |   | DF. 1589'           |               |      |      |       |
|   |                           |   | GL. 1578'           |               |      |      |       |
| DATE  | 10-7-65                   |   |                     |               |      |      |       |
| RUN NO.   | 1                         |   |                     |               |      |      |       |
| TYPE LOG  | BOND CEMENT - TT          |   |                     |               |      |      |       |
| DEPTH—DRILLER   | 2935'                     |   |                     |               |      |      |       |
| DEPTH—LOGGER  | 2916.5'                   |   |                     |               |      |      |       |
| BOTTOM LOGGED INTERVAL  | 2914'                     |   |                     |               |      |      |       |
| TOP LOGGED INTERVAL   | 1800'                     |   |                     |               |      |      |       |
| TYPE FLUID IN HOLE  | WATER                     |   |                     |               |      |      |       |
| SALINITY PPM CL.  |                           |   |                     |               |      |      |       |
| DENSITY LB./GAL.  |                           |   |                     |               |      |      |       |
| LEVEL   | FULL                      |   |                     |               |      |      |       |
| MAX. REC. TEMP. DEG. F  |                           |   |                     |               |      |      |       |
| OPR. RIG TIME   |                           |   |                     |               |      |      |       |
| RECORDED BY   | FOLEY                     |   |                     |               |      |      |       |
| WITNESSED BY  | MR. MIDKIFF               |   |                     |               |      |      |       |
| RUN   |                           | BORE HOLE RECORD                                    |                     | CASING RECORD |      |      |       |
| NO.   | BIT                       | FROM  | TO                  | SIZE          | WGT. | FROM | TO    |
| 1   | 6-1/4                     | 1885'   | 2935'               | 7"            | 20   | 0'   | 1883' |
|   |                           |   |                     | 4-1/2         | 9.5  | 0'   | 2935' |

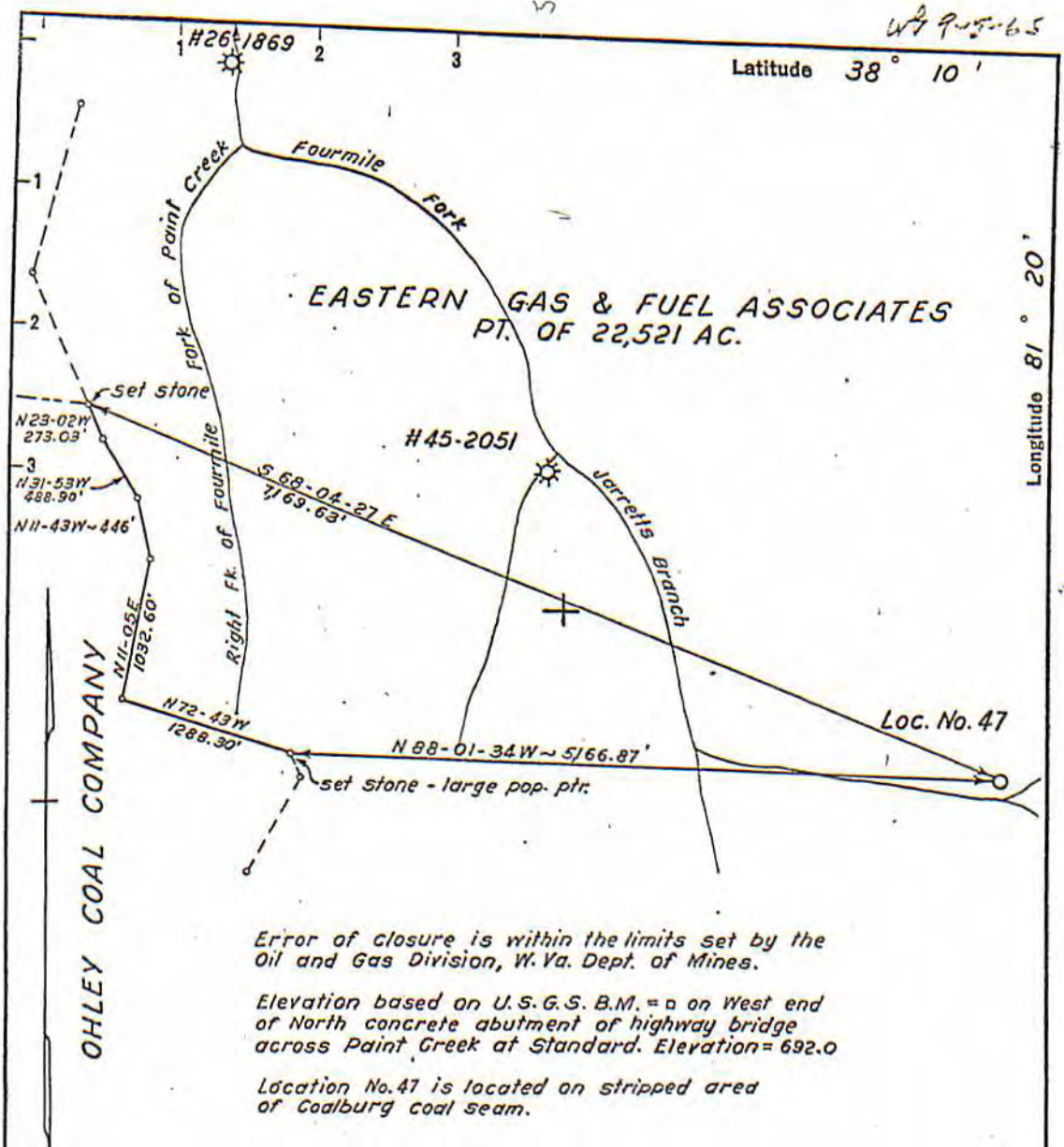




3902060F

WV 9-15-65

38



Error of closure is within the limits set by the Oil and Gas Division, W. Va. Dept. of Mines.

Elevation based on U.S.G.S. B.M. =  $\square$  on West end of North concrete abutment of highway bridge across Paint Creek at Standard. Elevation = 692.0

Location No. 47 is located on stripped area of Coalburg coal seam.

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

*John H. Burtwell*

New Location  Drill Deeper  Abandonment  EASTERN GAS & FUEL COOR. LOC. No. 47 = S.41,996.66 - W.56,974.32

Company ASHLAND OIL & REFINING CO.  
 Address CHARLESTON, W. VA.  
 Farm EASTERN GAS & FUEL ASSOC.  
 Tract \_\_\_\_\_ Acres 22,521 Lease No. 11909  
 Well (Farm) No. 47 Serial No. 4230  
 Elevation (Spirit Level) 1578.2  
 Quadrangle MONTGOMERY  
 County KANAWHA District CABIN CREEK  
 Engineer John H. Burtwell  
 Engineer's Registration No. 1442  
 File No. 19A Drawing No. \_\_\_\_\_  
 Date SEPT. 7, 1965 Scale 1" = 1000'

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

WELL LOCATION MAP  
 FILE NO. KAN-2060

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

- Denotes one inch spaces on border line of original tracing.

Received  
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 JAN 16 2015

01/30/2015



WW-4-A  
Revised 6/07

1) Date: January 14, 2015  
2) Operator's Well Number  
042300 (Eastern Gas & Fuel #47)  
3) API Well No.: 47 039 - 02060  
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 Quercus West Virginia LLC  
Address P. O. Box 9162  
Chapel Hill, NC 27515  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Terry Urban  
Address P. O. Box 1207  
Clendenin, WV 25045  
Telephone (304) 549-5915

5) (a) Coal Operator:  
Name None  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Pardee Minerals LLC  
500 Corporate Center Drive  
Address Scott Depot, WV 25560  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name Peabody Coal Trade LLC  
Address 209 W. Washington St.  
Charleston, WV 25302

See Attachment.

**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:  
By: Misty S. Christie  
Address: 1207 Briercliff Rd  
Bridgeport, WV 26330  
Telephone: \_\_\_\_\_  
My Commission Expires February 20, 2018

EQT Production Company  
Victoria J. Roark  
Permitting Supervisor  
PO Box 280  
Bridgeport, WV 26330  
(304) 848-0076

Subscribed and sworn before me this 15th day of January, 2015  
My Commission Expires: 2/20/18 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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01/30/2015



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WW-4-A

**Additional Coal Lessees**

Cyprus Kanawha Corp.  
5400 D. Big Tyler Road  
Charleston, WV 25313

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Terry Urban  
P. O. Box 1207  
Clendenin, WV 25045

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neopost  
01/15/2015  
US POSTAGE

FIRST-CLASS MAIL  
\$0.61  
ZIP 6330  
04-1L10228892

01/30/2015

**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: Jarretts Branch Quadrangle: Eskdale  
Elevation: 1576 ft. County: Kanawha District: Cabin Creek

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 \_\_\_ No X If so, what 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 \_\_\_\_\_

Company Official (Typed or Printed) Victoria Roark

Company Official Title Permitting Supervisor-WV

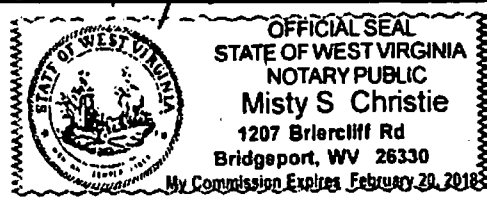
Subscribed and sworn before me this 15th day of January, 2015

Misty S. Christie Notary Public  
My Commission Expires 2/20/18

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JAN 20 2015

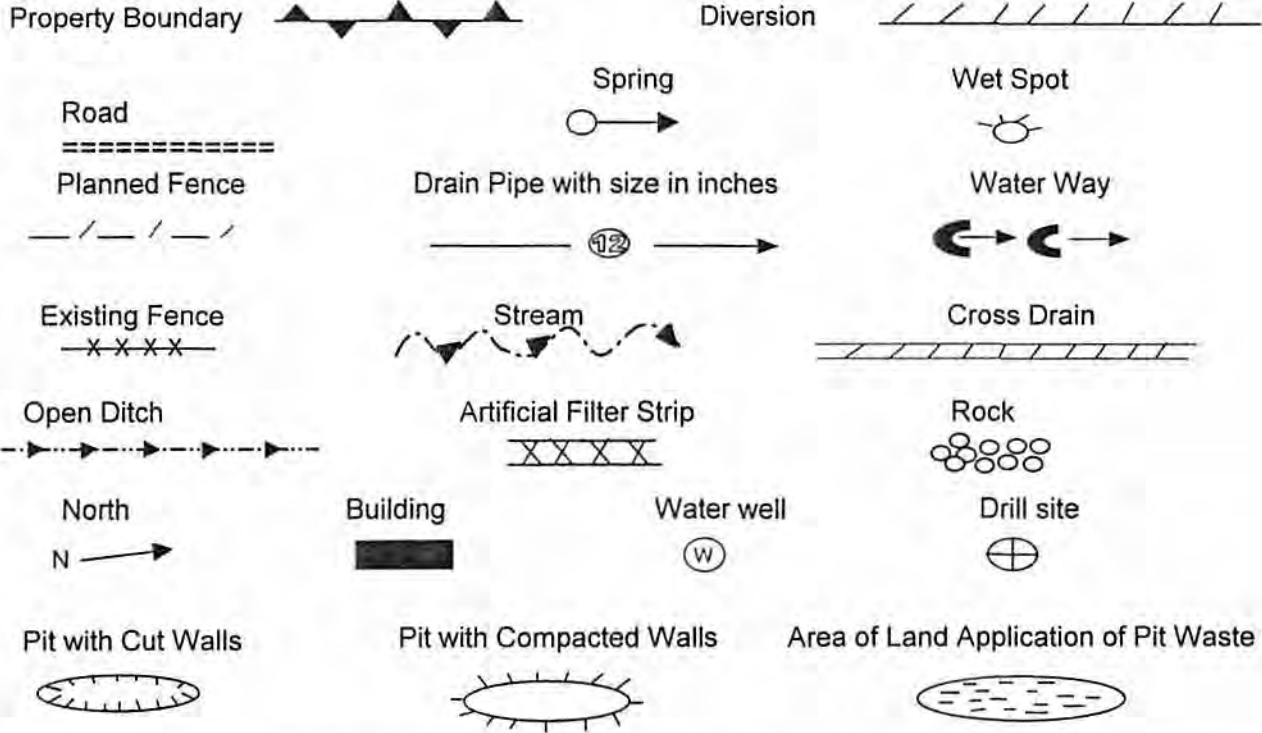
WV Department of  
Environmental Protection





**OPERATOR'S WELL NO.:**  
**042300 (Eastern Gas & Fuel #47)**

**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH \_\_\_\_\_

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

**SEED MIXTURES**

| Area I        |          | Area II       |          |
|---------------|----------|---------------|----------|
| Seed Type     | lbs/acre | Seed Type     | lbs/acre |
| Red Fescue    | 40       | Red Fescue    | 15       |
| Alsike Clover | 5        | Alsike Clover | 5        |
| Annual Rye    | 15       |               |          |
|               |          |               |          |

**ATTACH:**

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

Plan approved by: *[Signature]*

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

Title: *Drainage Detention*  
Field Reviewed? Yes  No

Date: 1-20-15

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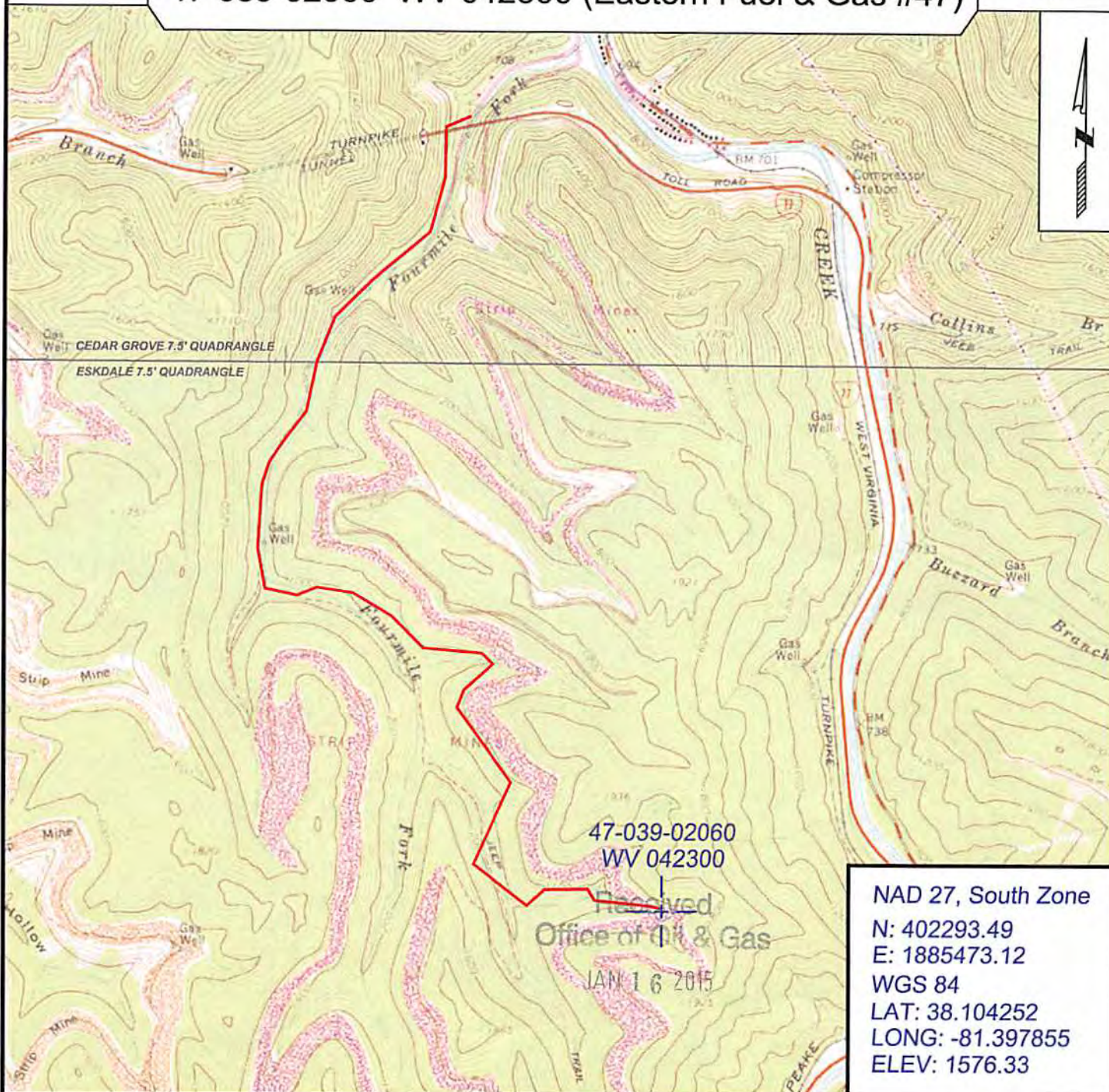
WV Department of  
Environmental Protection



Topo Quad: Eskdale 7.5' Scale: 1" = 2000'  
 County: Kanawha Date: January 8, 2015  
 District: Cabin Creek Project No: 52-14-00-07

47-039-02060 WV 042300 (Eastern Fuel & Gas #47)

Topo



47-039-02060  
WV 042300

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NAD 27, South Zone  
N: 402293.49  
E: 1885473.12  
WGS 84  
LAT: 38.104252  
LONG: -81.397855  
ELEV: 1576.33



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



WW-7  
8-30-06



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

API: 47-039-02060 WELL NO.: WV 042300 (Eastern Gas & Fuel #47)  
FARM NAME: Eastern Gas & Fuel  
RESPONSIBLE PARTY NAME: EQT Production Company  
COUNTY: Kanawha DISTRICT: Cabin Creek  
QUADRANGLE: Eskdale 7.5'  
SURFACE OWNER: Quercus West Virginia, LLC  
ROYALTY OWNER: Pardee Minerals, LLC, et al.  
UTM GPS NORTHING: 4217457  
UTM GPS EASTING: 465119 GPS ELEVATION: 480 m (1576 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

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**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.

*Steph...*  
Signature

PS # 2180  
Title

1/9/15  
Date





## POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY  
 LEASE NAME AND WELL No. Eastern Gas & Fuel #47 - WV 042300 - API No. 47-039-02060

### POTENTIAL SAMPLE LOCATIONS

There appears to be no known water samples within the required 1000' of the existing well WV 042300.

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Office of Oil & Gas

JAN 16 2015

**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 Rd  
Alum Creek, WV 25003  
phone: 304-756-2949  
fax: 304-756-2948

**RANSON OFFICE**

401 South Fairfax Blvd, Suite 3  
Ranson, WV 25438  
phone: 304-724-5008  
fax: 304-724-5010



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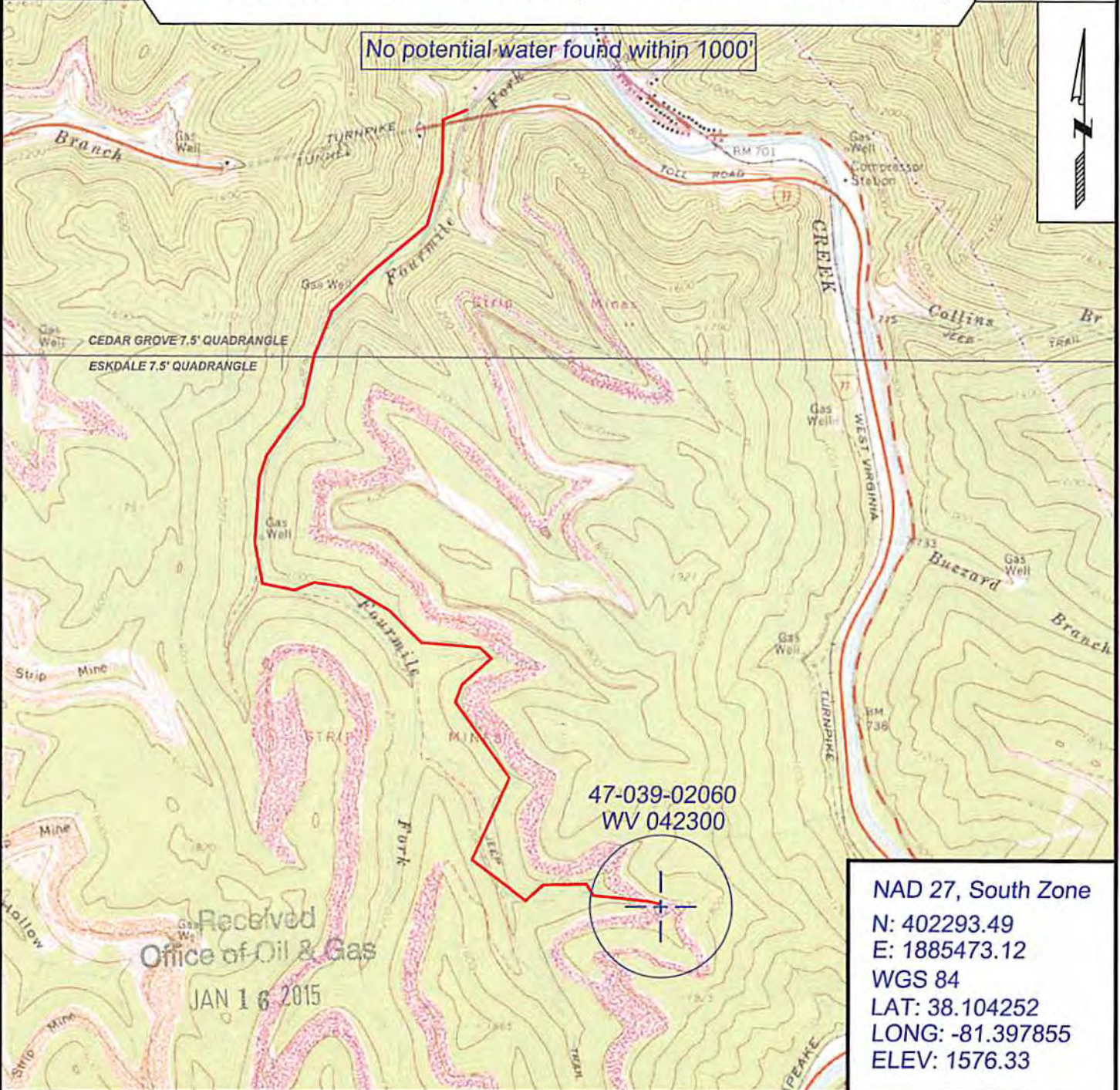
Topo Quad: Eskdale 7.5' Scale: 1" = 2000'

County: Kanawha Date: January 8, 2015

District: Cabin Creek Project No: 52-14-00-07

Water

47-039-02060 WV 042300 (Eastern Fuel & Gas #47)



SURVEYING AND MAPPING SERVICES PERFORMED BY:

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1-800-482-8606  
237 Birch River Road  
Birch River, WV 26610  
PH: (304) 649-8606  
FAX: (304) 649-8608

PREPARED FOR:

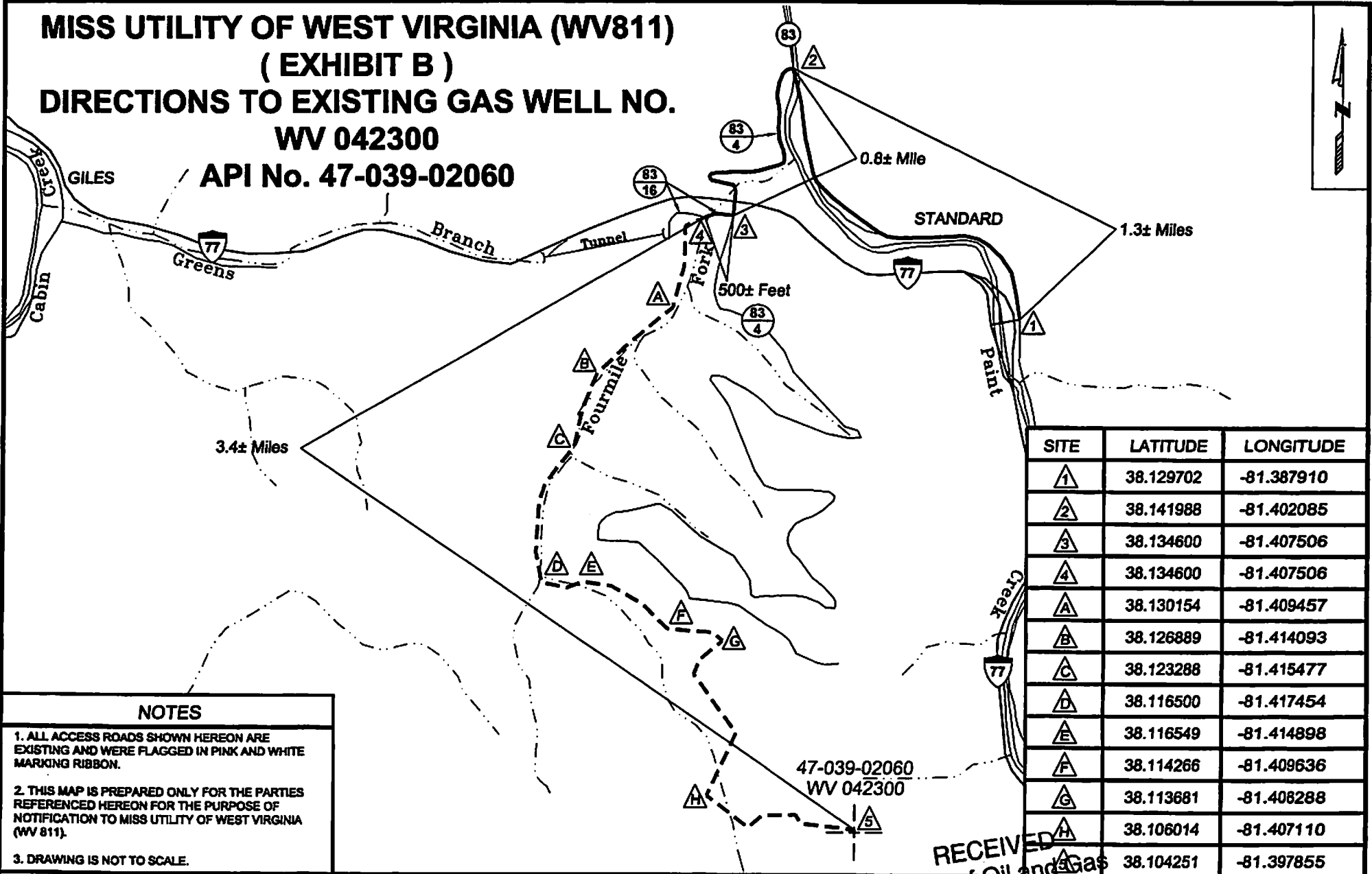
**EQT Production Company**

P.O. Box 280  
Bridgeport, WV 26330

01/30/2015

**MISS UTILITY OF WEST VIRGINIA (WV811)  
( EXHIBIT B )  
DIRECTIONS TO EXISTING GAS WELL NO.  
WV 042300**

**API No. 47-039-02060**



| SITE | LATITUDE  | LONGITUDE  |
|------|-----------|------------|
| 1    | 38.129702 | -81.387910 |
| 2    | 38.141988 | -81.402085 |
| 3    | 38.134600 | -81.407506 |
| 4    | 38.134600 | -81.407506 |
| A    | 38.130154 | -81.409457 |
| B    | 38.126889 | -81.414093 |
| C    | 38.123288 | -81.415477 |
| D    | 38.116500 | -81.417454 |
| E    | 38.116549 | -81.414898 |
| F    | 38.114266 | -81.409636 |
| G    | 38.113681 | -81.408288 |
| H    | 38.106014 | -81.407110 |
| I    | 38.104251 | -81.397855 |

**NOTES**

1. ALL ACCESS ROADS SHOWN HEREON ARE EXISTING AND WERE FLAGGED IN PINK AND WHITE MARKING RIBBON.
2. THIS MAP IS PREPARED ONLY FOR THE PARTIES REFERENCED HEREON FOR THE PURPOSE OF NOTIFICATION TO MISS UTILITY OF WEST VIRGINIA (WV 811).
3. DRAWING IS NOT TO SCALE.



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

1-800-482-8606  
237 Birch River Road  
Birch River, WV 26810  
PH: (304) 649-8606  
FAX: (304) 649-8608

County: Kanawha  
District: Cabin Creek  
Date: January 8, 2015  
Project No: 52-14-00-07  
FILE No: 52-07 WV 042300 MU B

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Office of Oil and Gas  
PREPARED FOR:  
JAN 20 2015  
**EQT PRODUCTION COMPANY**  
WV Department of Environmental Protection  
Box 280  
Bridgeport, WV 26330

39020607