



---

**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

January 07, 2016

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-8100294, issued to CARTER ROAG COAL 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: 809729  
Farm Name: BEAVER COAL CO LTD  
**API Well Number: 47-8100294**  
**Permit Type: Plugging**  
Date Issued: 01/07/2016

## 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.

FORM WW-4 (B)  
Observe  
File Copy  
(Rev. 2/01)

CK#  
6891300614  
\$100<sup>00</sup>

1) Date 10/5/2015  
2) Operator's  
Well No. 9729-T  
3) API Well No. 047 - 081 - 0294

STATE OF WEST VIRGINIA  
DEPARTMENT 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) Location: Elevation 2429.916 Watershed Soak Creek  
District        Town        County Raleigh Quadrangle Crab Orchard
- 6) Well Operator Carter Roag Coal Company 7) Designated Agent Ron Patterson  
Address 109 Appalachian Drive Address 109 Appalachian Drive  
Beckley, WV 25801 Beckley, WV 25801
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Gary Kennedy Name Noah Horn Well Drilling  
Address P.O. Box 268 Address PO Box 269  
Nimitz, WV 25978 Vansant, VA

10) Work Order: The work order for the manner of plugging this well is as follows:

SEE ATTACHED PROCEDURE

RECEIVED  
Office of Oil and Gas

DEC 04 2015

WV Department of  
Environmental Protection

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

Work order approved by inspector  Date 12/3/15

01/08/2016

## PLUGGING PROCEDURE

API # 047-081-00294

9729T

## WELL DATA

Surf. Elev. 2429.916

Plug Back TD 1578'

Casing:	Size (in)	Depth (ft)	Wt (#/ft)	Range	Cement
	20	20	94		Surface
	9 5/8	1194	36		Surface
	4 1/2	1571	9.5		1171'-1578'

Perforation: 1440-1443, 1469-1491 Packer: N/A

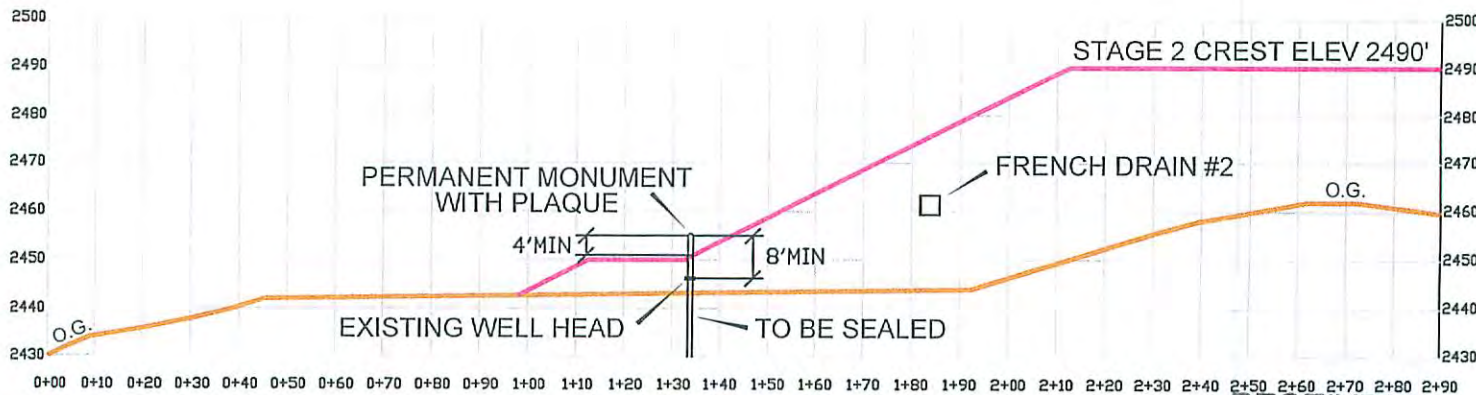
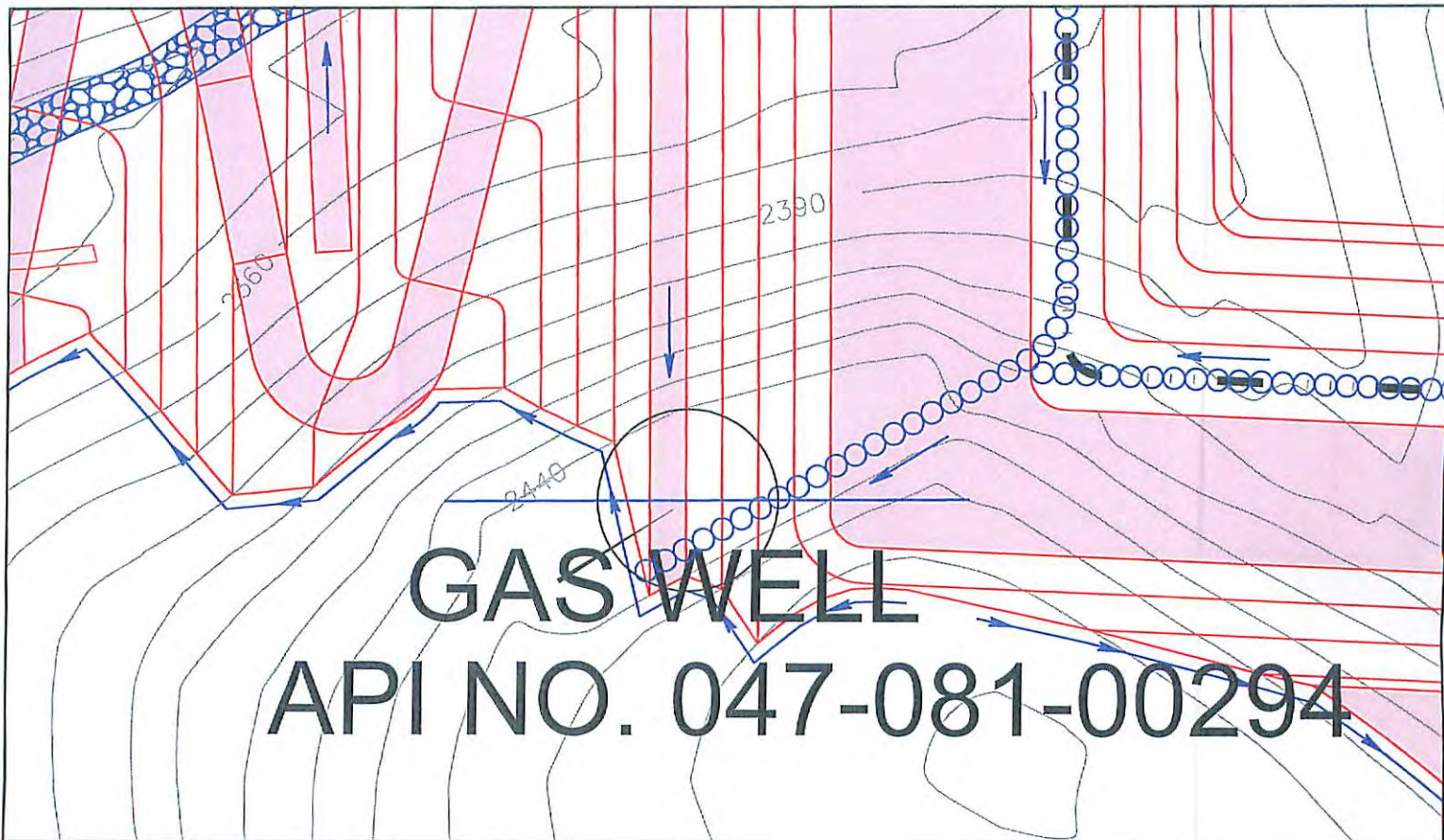
Coal:	Depth	Thickness	Elevation	Seam
	60	2	2369.9	Beckley
	550	4	1879.9	Poca 4
	693	5	1736.9	Poca 3
	739	5	1710.6	Poca 2

## PROCEDURE:

- 1) MIRU
- 2) Run tubing to bottom ~ 1578'. Pump 40 bbls. of 6% Gel.
- 3) Pump Class A Cement from 1578' to 1194'. TOO H.
- ★ 4) Freepoint 4 1/2". Should be ~ 1171'. Cut 4 1/2" and pump Class A cement from casing cut to 1060'. } PLUG 1
- 5) Pump 6% Gel through 4 1/2" to above 900'.
- 6) Pump Class A Cement through 4 1/2" from 898' to 593' for Plug 2.
- 7) Pull 4 1/2" to 300' and pump Class A Cement from 300' to surface for Plug 3.
- 8) Erect monument per WV State Code and RDMO. SEE MARKER ATTACHMENT
- ★ 9) In step 4 it may be necessary to TOO H with 4 1/2" and TIH with the 2 7/8" tubing work string to pump the remaining Class A Cement Plugs and 6% Gel spacers.

JMM  
00 1/2 G  
1105/16

01/08/2016



X-SECTION A-AA  
Scale: 1" = 40'

RECEIVED  
Office of Oil and Gas

DEC 04 2015

WV Department of  
Environmental Protection

NOTE: Permanent Monument to be Raised to a Minimum of 4' above Finished Grade.  
Extension Pipe to be Welded onto the Existing Well Head and be Filled with Concrete.

AFFINITY COAL COMPANY  
AFFINITY REFUSE  
GAS WELL - PERMANENT MONUMNET

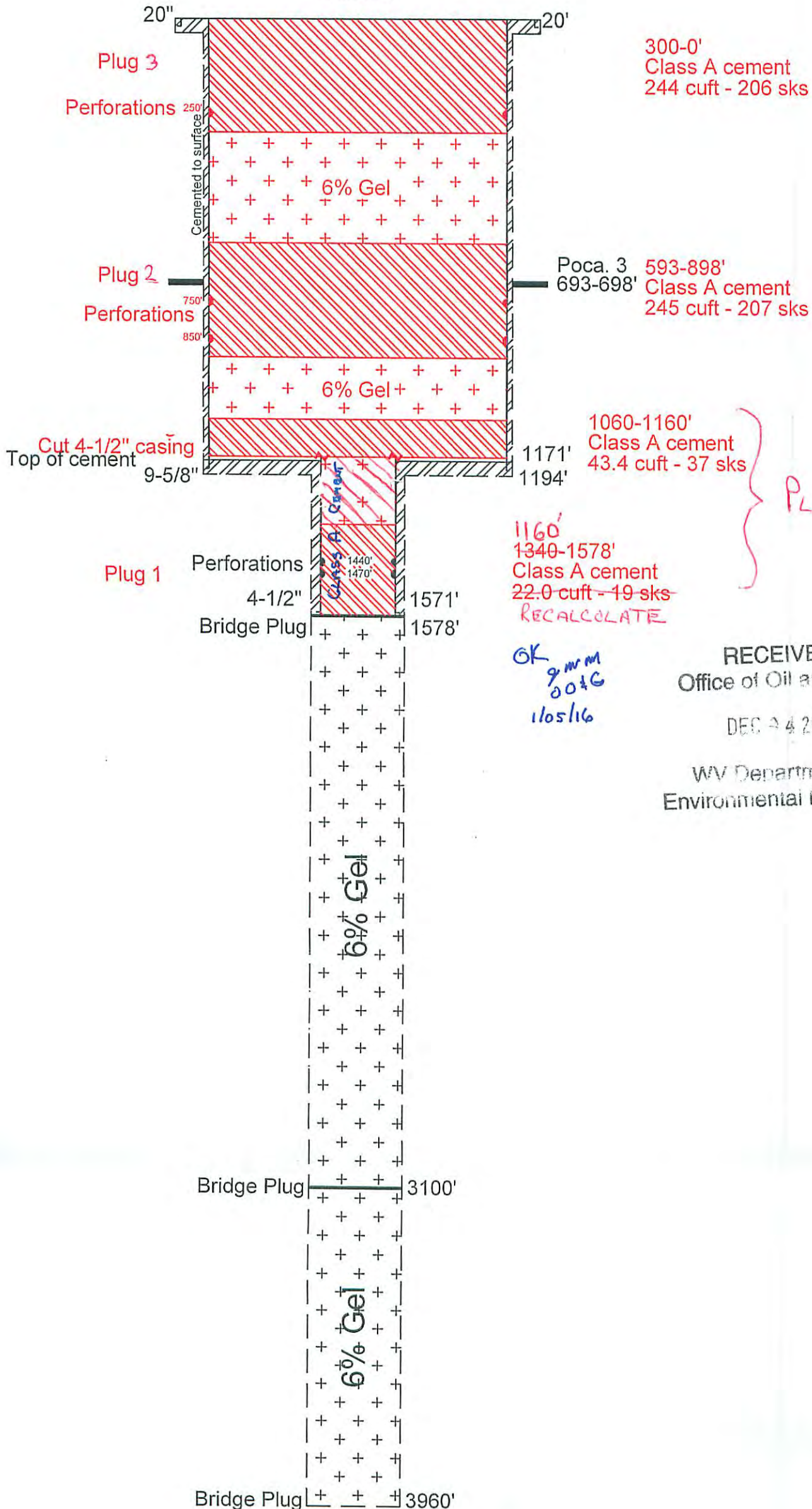
SCALE: AS NOTED - DATE: OCTOBER 13, 2015  
CONTOUR INTERVAL: TEN FEET

01/08/2016

# Proposed Plug & Abandon

8100294P

9729-T  
081-00294  
2429.916



PLUG 1

1160'  
1340-1578'  
Class A cement  
22.0 cuft - 19 sks  
RECALCULATE

OK  
9/11/16  
0016  
11/05/16

RECEIVED  
Office of Oil and Gas  
DEC 24 2015  
WV Department of  
Environmental Protection

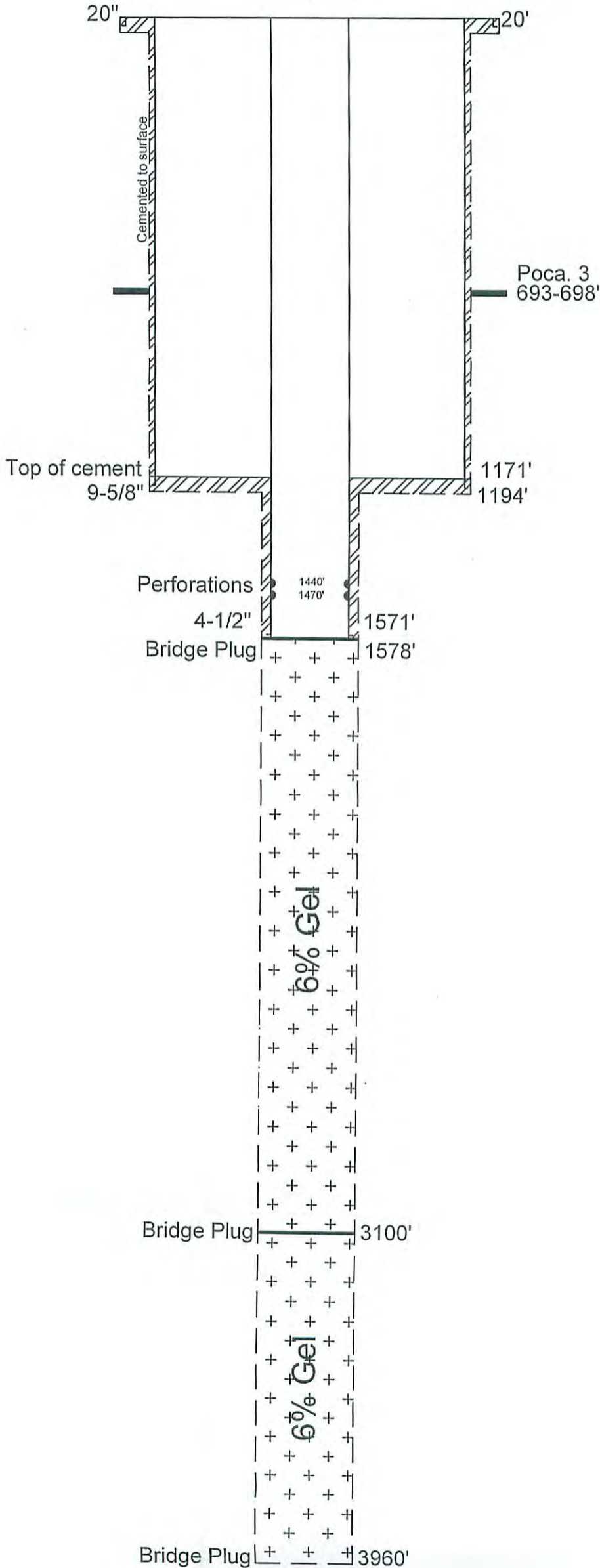
01/08/2016

*[Handwritten signature]*

# Current Completion

0100294P

9729-T  
081-00294  
2429.916



RECEIVED  
Office of Oil and Gas  
DEC 04 2015  
WV Department of  
Environmental Protection

01/08/2016





Description	Depth	Marker Depth	Top	Bottom	Oil Gas or Water	Depth Feet	Remarks
Sand			1774	1770		1770-1774	
Sand			1774	1770			
Sandy Shale			1770	1770			Barren Bay
Sand & Shale			1770	1770			Barren Bay
Sand			1770	1770			Barren Bay
Shale & Sand			1770	1770			Barren Bay
Sand			1770	1770			Barren Bay
Red Rock-Shale-Sand			1762	1750			
Sand			1750	1750			
Red Rock - Shale - Sand			1750	2005			
Sand & Shale			2006	2107			
Sand			2107	2133			
Red Rock - Sand - Shale			2133	2267			
Sand & Shale			2267	2477			
Shale			2477	2550			
Sand & Shale			2550	2570			
Little Lino			2570	2654			
Shale			2654	2702			
Big Lino			2702	3228			
Injun Sand			3228	3290			
Sand & Shale			3290	3482			
Shale			3482	3527			
Wdr. Sand			3527	3581			
Shale & Sand			3581	3960			When drg. completed gas tested 119 HSP
TOTAL DEPTH			3960				
Plugged back to			1578				

RECEIVED  
Office of Oil and Gas  
DEC 04 2015  
WV Department of  
Environmental Protection

*Handwritten signature*

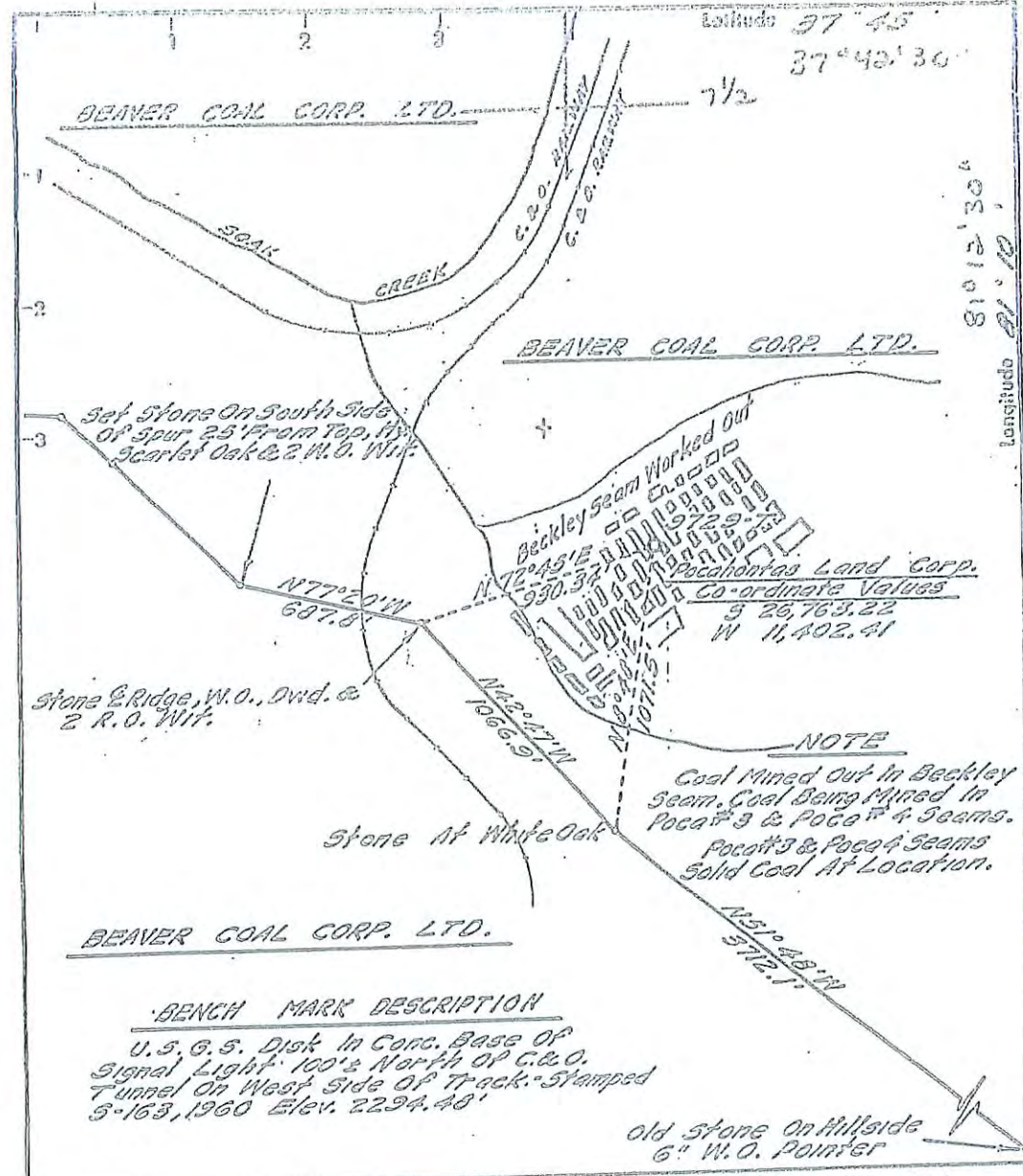
APPROVED: *Robert M. ...*  
By: *...*  
(118)



W300

DATE: 6/9/72 CEN

8100294P



- Fracture
- Before 6/3/29
- New location
- Drill Deeper
- Redrill
- Abandonment

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 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.  
The accuracy of this survey is within the limits and as prescribed in Paragraph 5 by the Oil and Gas Division of the Department of Mines Regu-

Company COLUMBIA NATURAL RESOURCES  
 Address P.O. Box 6070 CHARLESTON, WV 25362-0070  
 Farm BEAVER COAL CO. LTD.  
 Tract Acreage 17632<sup>70</sup> Lease No. 05712  
 Well (Farm) No. Serial No. 9729-T  
 Elevation (Spirit Level) 2442.60'  
 Quadrangle FLATTOP 15'  
 County RALEIGH District TOWN  
 Engineer Adrian E. Hardman  
 Engineer's Registration No. 2330  
 File No. 82-13 Drawing No. 2330  
 Date JUNE 20 '72 Scale 1" = 500'

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

WELL LOCATION MAP  
 FILE NO. Ral-294-P  
 PL. CANCELLED  
 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  
Office of Oil and Gas

DEC 04 2015

WV Department of Environmental Protection

*Handwritten signature*

Columbia  
Natural  
Resources

8100294P

August 28, 2000

Mr. Rodney Dillon  
WV Dept. of Energy  
Oil & Gas Section  
#10 McJunkin Road  
Nitro, WV 25143-2506

Region Office:  
1165 Co. Rd. 10  
Nitro, WV  
25143-2506  
304/824-5141  
304/824-5142  
304/824-5143  
304/824-5144

Dear Mr. Dillon;

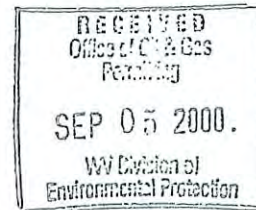
Columbia Natural Resources, Inc. (CNR) would like to request that you cancel API # # 47-081-0294P which is the plugging permit for our Well # 809729 and API #47-081-0297P which is the plugging permit for our Well # 809730. We are requesting this because CNR has sold these two wells to Commonwealth Gas. It is our understanding that as long as these permits are active, the transfer of our bond to Commonwealth Gas can not take place.

If you need additional information, please contact me at 304/824-5141, Ext. 25.

Sincerely,



J. D. Gocke



cc: Al Blankenship  
Jack Watson  
Rich Aldridge  
Arco Sharpe  
Pat Nicholas

Jdgmemo0082000

RECEIVED  
Office of Oil and Gas

DEC 9 4 2015

WV Department of  
Environmental Protection



01/08/2016

WW4-A  
Revised  
2/01

1) Date: 10/5/2015  
2) Operator's Well Number  
9729-T  
3) API Well No.: 47 - 081 - 0294

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

4) Surface Owner(s) to be Served  
(a) Name Beaver Coal Company  
Address 115 1/2 South Kanawha Street  
Beckley, WV 25801  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Gary Kennedy  
Address P.O. Box 268  
Nimitz, WV 25978  
Telephone 304-466-9868

5)(a) Coal Operator  
Name Affinity Coal Company  
Address PO Box 267  
Midway WV 25878  
(b) Coal Owner(s) with Declaration  
Name Beaver Coal Company  
Address 115 1/2 South Kanawha Street  
Beckley, WV 25801  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name Affinity Coal Company  
Address PO Box 267  
Midway WV 25878

RECEIVED  
Office of Oil and Gas  
JAN 5 2015  
WV Department of  
Environmental Protection

**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

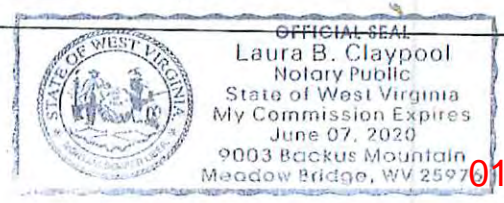
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department 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 Carter Roag Coal Company  
By: Ron Patterson  
Its: Manager of Engineering  
Address 109 Appalachian Drive  
Beckley, WV 25801  
Telephone 304-255-9030 ext. 7005

Subscribed and sworn before me this 5th day of January 2016  
Laura B. Claypool Notary Public  
My Commission Expires June 07, 2020



01/08/2016

FORM WW-4(B)  
Reverse

API No. 081-0294  
Farm Name Beaver Coal Company  
Well No. 9729-T

**INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

**WAIVER**

The undersigned coal operator X /owner \_\_\_\_\_ /lessee X of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: 10/7/15

Name: Affinity Coal Company  
By: William B. Wells, Jr  
Its: Vice President  
William B Wells Signature  
Date 10/7/15

**SURFACE OWNER WAIVER**

Operator's Well Number 9729-T 091-00294

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A**

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.  
WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas  
Department of Environmental Protection  
1356 Hansford Street  
Charleston, WV 25301  
(304) 558-6342

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

**Comments must be in writing.** Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

**If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.**

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Name F. Lon Jones  
By BEAVER COAL COMPANY, LTD  
Its LAND MANAGER

F. Lon Jones  
Signature  
\_\_\_\_\_  
Date 11/18/15

RECEIVED  
Office of Oil and Gas  
DEC 03 2015  
WV Department of Environmental Protection  
01/08/2016

WW-9  
(2/15)

API Number 47 - 081 - 00294  
Operator's Well No. 9729-T

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Carter Roag Coal Company OP Code 494505497

Watershed (HUC 10) Soak Creek Quadrangle Crab Orchard

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes  No

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: bentonite gel, water, cement

Will a synthetic liner be used in the pit? Yes  No  If so, what ml.? 20 ml.

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_ )

*gwm for 20%*

WV Department of Environmental Protection

JAN 5 2016

RECEIVED  
Office of Oil and Gas

Will closed loop system be used? If so, describe: No

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

-If oil based, what type? Synthetic, petroleum, etc. \_\_\_\_\_

Additives to be used in drilling medium? NONE

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in Pit

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Cement

-Landfill or offsite name/permit number? \_\_\_\_\_

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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 Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term 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 Terry Hamrick

Company Official (Typed Name) Terry Hamrick

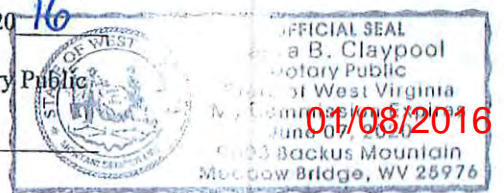
Company Official Title Senior Geologist

Subscribed and sworn before me this 5<sup>th</sup> day of January, 2016

Chama B. Claypool

Notary Public

My commission expires June 07, 2020





Carter Roag Coal Company

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH 6.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.0 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

KY 31 Fescue 40#

Same as Temporary

Ladino Clover 5#

Rye Grass 16#

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

*Henry Kennedy*

Comments:

RECEIVED  
Office of Oil and Gas

DEC 04 2015

Title: *Inspector*

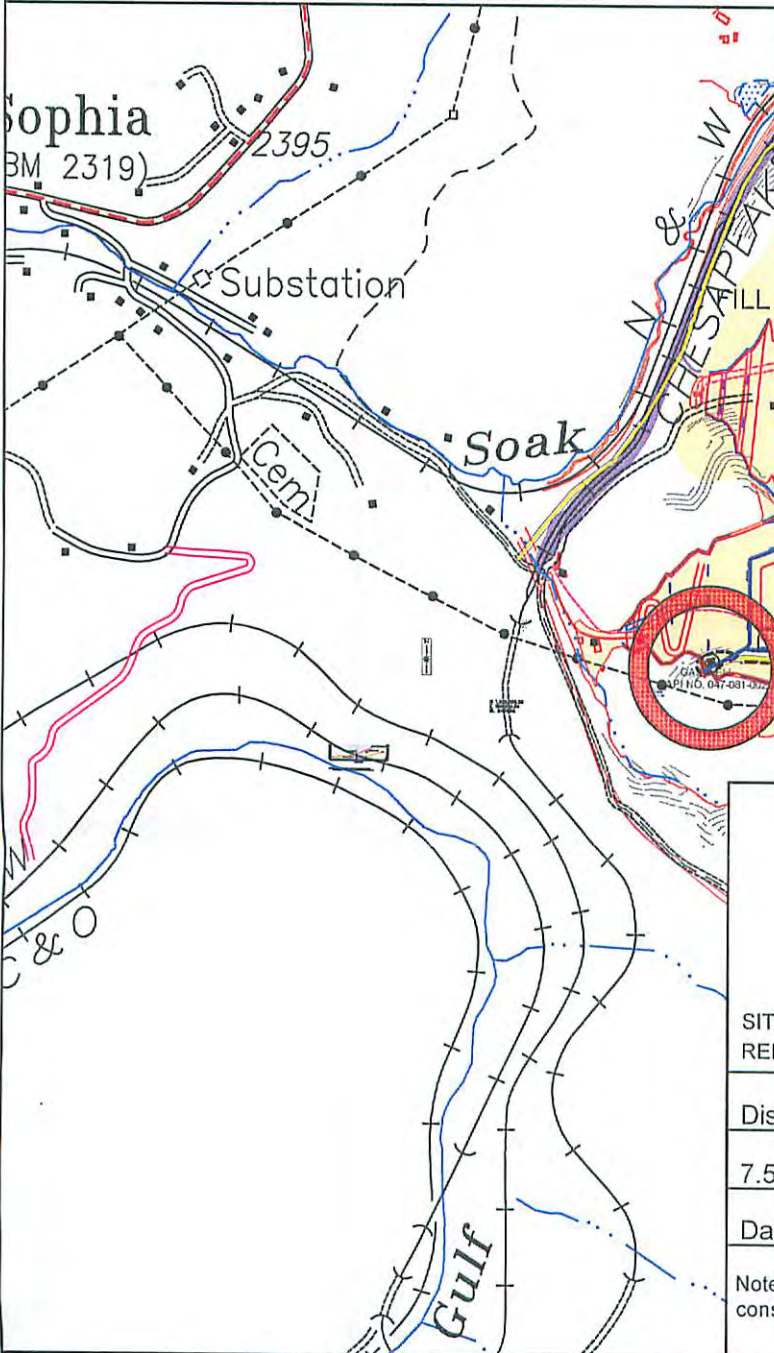
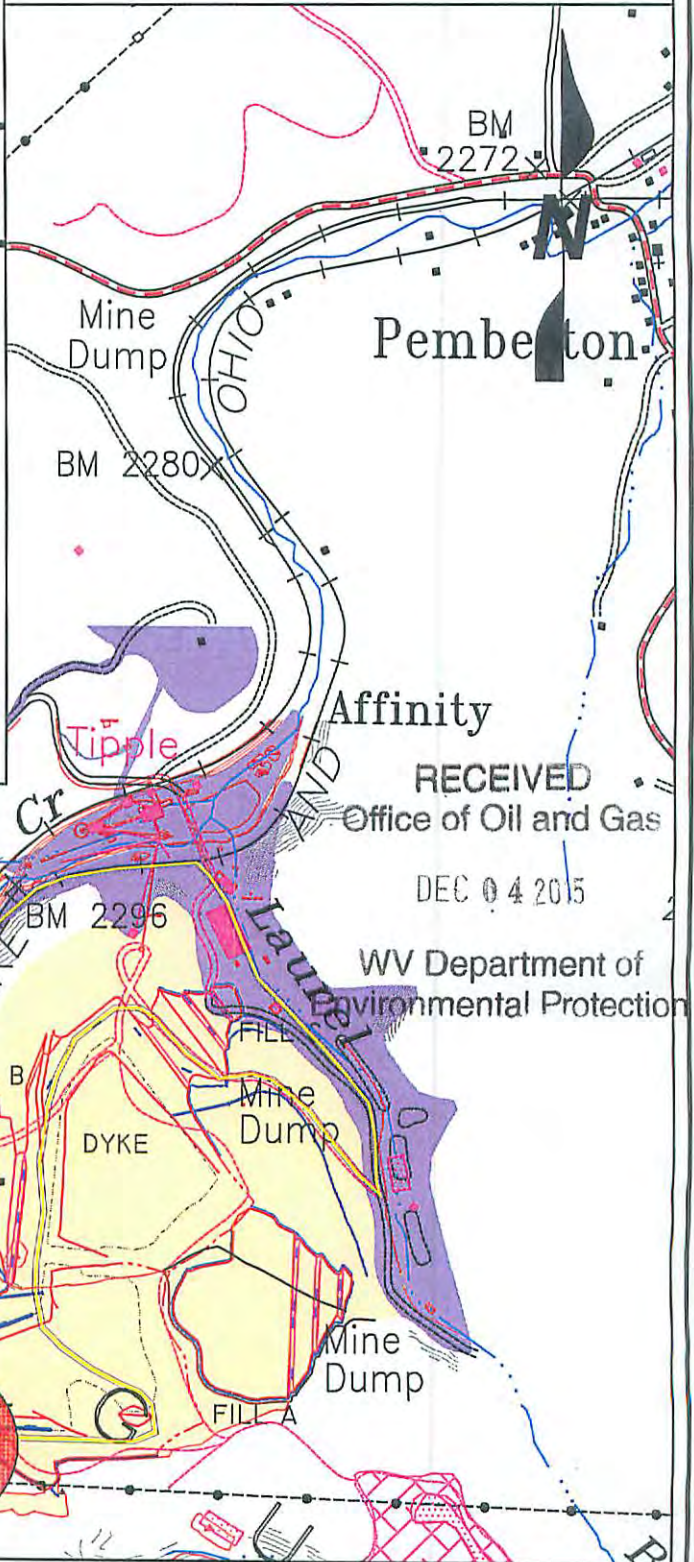
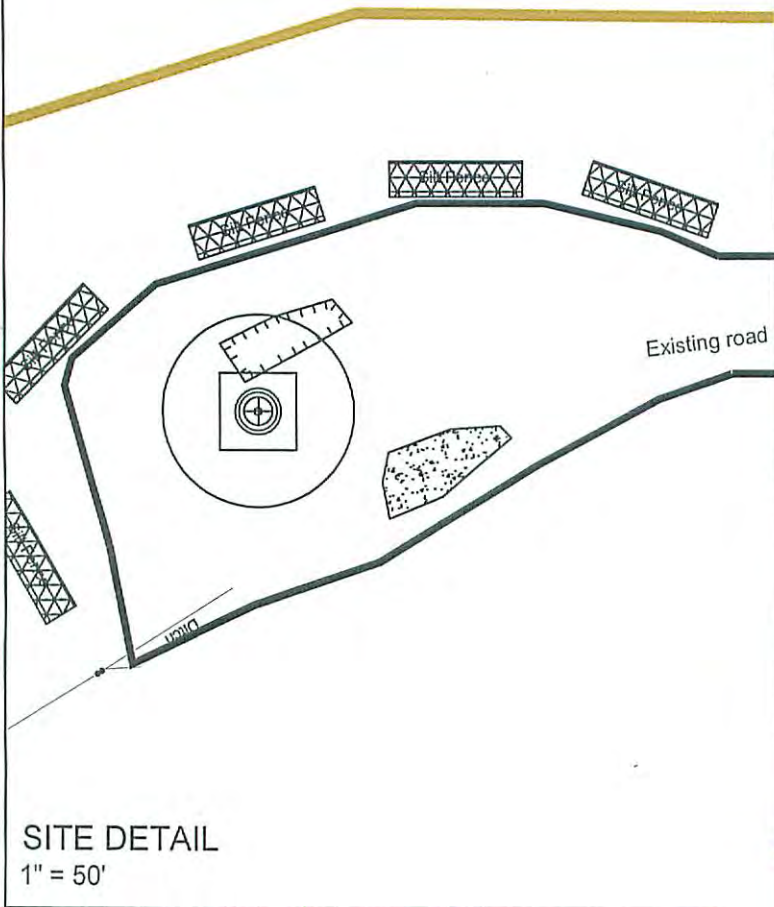
Date: *12/3/15*

Field Reviewed? ( ) Yes

( ) No

WV Department of  
Environmental Protection

1. Inlets and outlets will be protected by crushed stone. Straw bales, silt fences and windrowed brush will be utilized to control sediment and run-off.
2. Drainage ditches will be cut along the entire length of the road and culverts installed as per BMP. During Phase II water breaks will be installed every 80 to 135 feet, according to slope requirements as per BMP manual.
3. ACCESS WILL BE VIA EXISTING ROADWAYS CONSTRUCTED BY AFFINITY COAL COMPANY AS PART OF REFUSE IMPOUNDMENT - PERMIT No. O-73-82



**CARTER ROAG COAL COMPANY**  
Reclamation Plan - Form WW-9  
047-081-00294  
9729-T  
Plug & Abandon Application

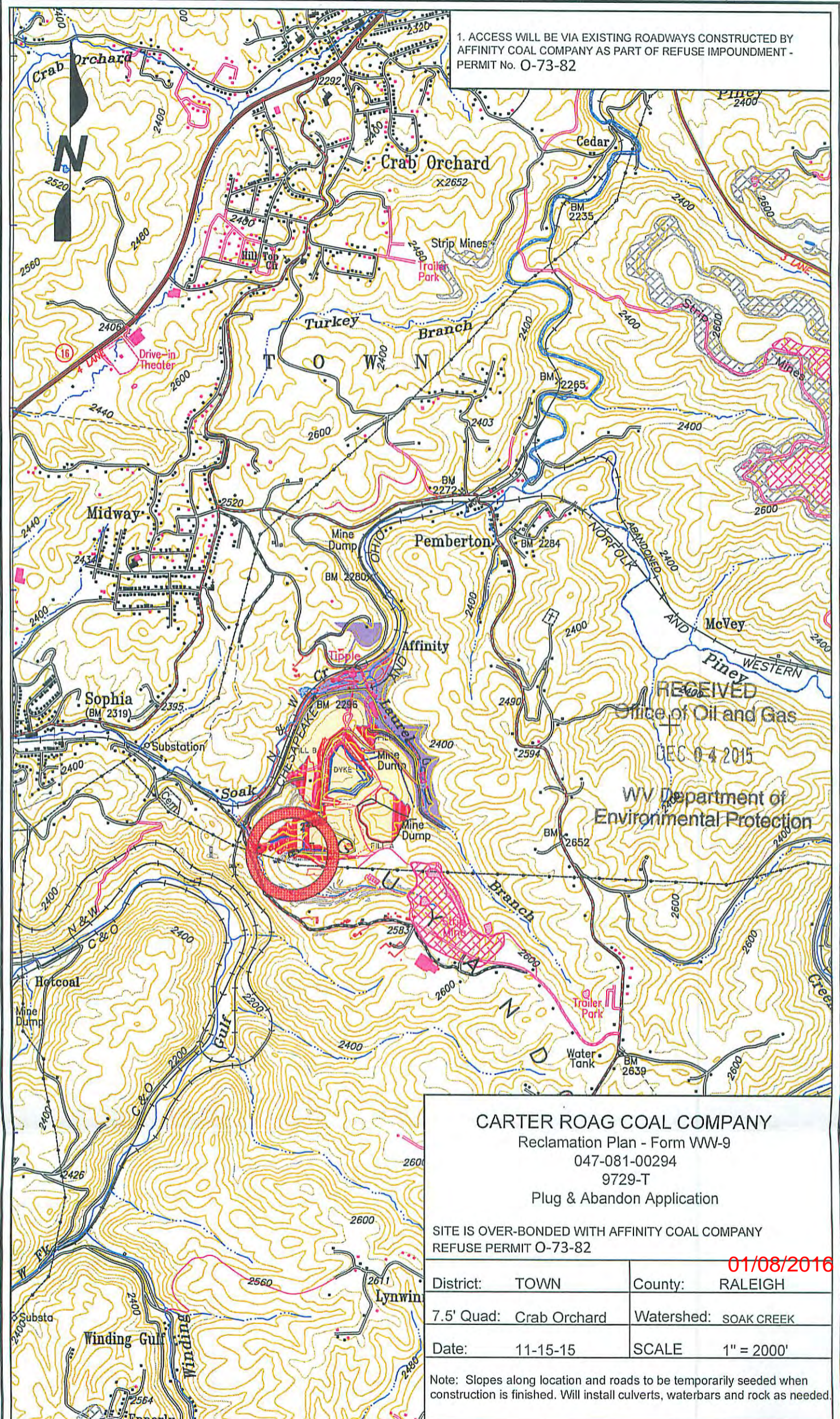
SITE IS OVER-BONDED WITH AFFINITY COAL COMPANY  
REFUSE PERMIT O-73-82

District: TOWN	County: RALEIGH
7.5' Quad: Crab Orchard	Watershed: SOAK CREEK
Date: 11-15-15	SCALE 1" = 1000'

Note: Slopes along location and roads to be temporarily seeded when construction is finished. Will install culverts, waterbars and rock as needed.

01/08/2016

1. ACCESS WILL BE VIA EXISTING ROADWAYS CONSTRUCTED BY AFFINITY COAL COMPANY AS PART OF REFUSE IMPOUNDMENT - PERMIT No. O-73-82



RECEIVED  
Office of Oil and Gas  
DEC 04 2015  
WV Department of  
Environmental Protection

**CARTER ROAG COAL COMPANY**

Reclamation Plan - Form WW-9  
047-081-00294  
9729-T  
Plug & Abandon Application

SITE IS OVER-BONDED WITH AFFINITY COAL COMPANY  
REFUSE PERMIT O-73-82

District:	TOWN	County:	RALEIGH
7.5' Quad:	Crab Orchard	Watershed:	SOAK CREEK
Date:	11-15-15	SCALE	1" = 2000'

01/08/2016

Note: Slopes along location and roads to be temporarily seeded when construction is finished. Will install culverts, waterbars and rock as needed.

