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

July 01, 2015

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-1702859, issued to MCCUNE, JACK D, 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 penalities 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: 1
Farm Name: ELLIFRITT, EDNA L.
API Well Number: 47-1702859
Permit Type: Plugging
Date Issued: 07/01/2015

Promoting a healthy environment.

47-17-02859

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.

WW-4B
Rev. 2/01

1) Date June 16, 2015
2) Operator's Well No. Ellifritt #1
3) API Well No. 47- 017 - 02859

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 ____ or Underground storage ____) Deep ____/ Shallow X

5) Location: Elevation 1062'
District Central
Watershed North Fork Hughes River
County Doddridge Quadrangle Pennsboro

6) Well Operator Jack D. McCune
Address 4695 WV HWY 5W
Glenville, WV 26351

7) Designated Agent Jack D. McCune
Address 4695 WV HWY 5W
Glenville, WV 26351

8) Oil and Gas Inspector to be notified
Name Douglas Newlon
Address 601 57th Street, SE
Charleston, WV 25304

9) Plugging Contractor
Name Antero Resources Corporation
Address 1615 Wynkoop Street
Denver, CO 80202

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

*Please see attached Work Order.

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

Work order approved by inspector Doug Newlon for Date 7/1/15

OG-10
Rev. 9-71

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

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

Quadrangle Pennsboro 7.5
Permit No. 47-017-2859

Company Magnum Oil Corporation
Address P.O. Box 4295, Parkersburg, WV 26101
Farm Ellifritt Acres 40
Location (waters) Dotson Run
Well No. 1 Elev. 1,000'
District 6 Central County Doddridge
The surface of tract is owned in fee by
Edna L. Ellifritt, etal
Address Greenwood, WVa
Mineral rights are owned by Same as above
Address
Drilling Commenced November 23, 1980
Drilling Completed January 24, 1981
Initial open flow ____ cu. ft. ____ bbls.
Final production 300m cu. ft. per day 6 bbls.
Well open 20 hrs. before test 800 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8			
8 5/8	254'	254'	circulate
7			
5 1/2			
4 1/2		2450'	200 sks.
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.
2 stage foam: 1st stage: 87 bbls. treated water; 25,000 # 20/40 sand, 170,000 scf nitrogen
2nd stage: 128 Bbls. treated water; 25,000# 20/40 sand, 170,000 scf nitrogen

Coal was encountered at None Feet ____ Inches
Fresh water 109 Feet ____ Salt Water ____ Feet ____
Producing Sand Big Injun & Weir Depth 2282-2373 & 2066-2078

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Top Soil			0	10		
Shale & slate			10	108		
Sand			109	112	Water	
Slate			113	350		
Red rock			350	403		
Sand			403	435		
Slate & red rock			436	900		
Sand			900	926		
Slate & shale			927	1100		
Shale & sand			1101	1875		
Maxton			1875	1894		
Shale & sand stringers			1895	1947		
Big Lime			1948	2010		
Big Injun			2010	2082		
Shale			2083	2279		
Weir			2280	2402		
Shale			2403	2455		
				2455 TD		

(over)

* Indicates Electric Log tops in the remarks section.

RECEIVED
MAR 11 1981
OIL & GAS DIVISION
DEPT. OF MINES

RECEIVED
Office of Oil and Gas
JUN 25 2015
WV Department of
Environmental Protection

DATE: JUL 21 1981

ARTICIPANTS:

WELL OPERATOR: Magnum Oil Corp.

FIRST PURCHASER: Carnegie Natural Gas Co.

OTHER:

BUYER-SELLER CODE

021677

003042

~~Ck map 1000'~~
~~OK Good~~

W. Va. Department of Mines, Oil & Gas Division
WELL DETERMINATION FILE NUMBER
81-5-13-103-017-2859
Use Above File Number on all Communications Relating to Determination of this Well

Qualifies F E Huzzey

CHECK EACH ITEM AS COMPLETE OR NOTE WHAT IS MISSING.

ITEM NO.

1. FERC -121 ✓ Items not completed - Line No. 70 & 80 b,c,d
2. IV-1 Agent ✓ Georgie Gainer
3. IV-2 Well Permit —
4. IV-6 Well Plat ✓
5. IV-35 Well Record ✓ Drilling ✓ Deepening —
6. IV-36 Gas-Oil Test: Gas Only — Was Oil Produced? — Ratio —
7. IV-39 Annual Production — years
8. IV-40 90 day Production — Days off line: —
9. IV-48 Application for certification - Complete? ✓

0-17. IV Form 51 - 52 - 53 - (54) - 55 - 56 - 57 - 58 Complete? ✓ Affidavit Signed ✓

8-28. Other: Survey — Logs — Geological Charts —
Structure Map — 1:4000 Map — Well Tabulations —
Gas Analyses —

(5) Date commenced: 11-23-80 Date completed 1-24-81 Deepened —

(5) Production Depth: 2282-2372 ∩ 2066-78

(5) Production Formation: Big Injun & Weir

(5) Final Open Flow: 300 MCF

(5) After Frac. R. P. 800# 20 hrs.

(6) Other Gas Test: —

(7) Avg. Daily Gas from Annual Production: —

(8) Avg. Daily Gas from 90-day, ending w/1-120 days —

(8) Line Pressure: — PSIG from Daily Report

(5) Oil Production: — From Completion Report —

)-17. Does lease inventory indicate enhanced recovery being done NO

)-17. Is affidavit signed? ✓ Notarized? ✓

es official well record with the Department confirm the submitted information? yes

ditional information — Does computer program confirm? —

s Determination Objected to — By Whom? —

JUN 25 2015
Environmental Protection

TS

FORM IV-54WC
[12-78]

Date May 11, 19 81

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

Operator's Well No. Ellifritt #1

API Well No. 47 - 017 - 2859
State County Permit

WELL CLASSIFICATION FORM

NEW ONSHORE PRODUCTION WELL

NGPA Section 103

DESIGNATED AGENT Hays & Co.
ADDRESS P.O. Box 590
Spencer, W.V. 25276

WELL OPERATOR Magnum Oil Corp.
ADDRESS P.O. Box 4295
Parkersburg, W.V. 26101

LOCATION: Elevation 1000
Watershed Dotson Run
Dist. Center County Doddridge Quad. Pennsboro

GAS PURCHASER Carnegie
ADDRESS 3904 Main St.
Munhall, Pa. 15120

Gas Purchase Contract No.
Meter Chart Code
Date of Contract

* * * * * * * * * * * * * * * * * * *

Date surface drilling was begun: 11 - 23 - 80

Indicate the bottom hole pressure of the well and explain how this was calculated:

AFFIDAVIT

I, David M. Chambers, having been first sworn according to law state that surface drilling of the well for which this determination is sought was begun on or after February 19, 1977; the well satisfies applicable state or federal well spacing requirements and the well is not within a proration unit, in existence at the time surface drilling began, which was applicable to the reservoir from which gas is or will be produced and which applied to any other well producing gas in commercial quantities or on which surface drilling began on or after February 19, 1977, and which was capable of producing gas in commercial quantities. I state, further, that I have concluded, to the best of my information, knowledge and belief, that the well for which this determination is sought is a new onshore production well and that I am not aware of any information not described in the application which is inconsistent with this conclusion.

David M. Chambers

STATE OF WEST VIRGINIA,
COUNTY OF Kanawha, TO WIT:

I, David M. Gillespie, a Notary Public in and for the state and county aforesaid, do certify that David M. Chambers whose name is signed to the writing above, bearing date the 13th day of March, 1981, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 13th day of March, 1981.

My term of office expires on the 20th day of May, 1989.

David M. Gillespie
Notary Public

[NOTARIAL SEAL]

RECEIVED
Office of Oil and Gas
JUN 25 [illegible]
WV Department of
E[illegible]

IV-20
Obverse
1-84

RECEIVED
JUN 12 1984
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT

COMPANY Magnum Oil Corp.

PERMIT NO 017-2859

FARM & WELL NO Ellifritt Zone

DIST. & COUNTY Central / Dodd

RULE	DESCRIPTION	IN COMPLIANCE YES	NO
23.06	Notification Prior to Starting Work		
25.04	Prepared before Drilling to Prevent Waste		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing		
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing		
15.04	Adequate Cement Strenght		
15.05	Cement Type		
23.02	Maintained Access Roads	X	
25.01	Necessary Equipment to Prevent Waste	X	
23.04	Reclaimed Drilling Pits	X	
23.05	No Surface or Underground Pollution		
23.07	Requirements for Production & Gathering Pipelines		
16.01	Well Records on Site		
16.02	Well Records Filed		
7.05	Identification Markings	X	

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Mike Underwood

DATE 6-7-84

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

Administrator-Oil & Gas Division

June 27, 1984
DATE

RECEIVED
Office of Oil and Gas
JUN 25 2015
WV Department of
Environmental Protection

RECEIVED
Office of Oil and Gas

FERC 121

RECEIVED MAY 13 1981 OIL & GAS DIVISION DEPT. OF MINES

1.0 API well number: (If not available, leave blank. 14 digits.)	47 - 017 - 2859
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	103 (Section of NGPA) ____ (Category Code)
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	2455 feet
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	MAGNUM OIL CORPORATION (Name) ____ (Seller Code) P.O. Box 4295 (Street) Parkersburg, W.V. 26101 (City, State, Zip Code)
5.0 Location of this well: (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	Canter District (Field Name) Doddridge (County) W.V. (State)
(b) For OCS wells:	Area Name ____ Block Number ____ Date of Lease: Mo. Day Yr. ____ OCS Lease Number ____
(c) Name and identification number of this well: (35 letters and digits maximum.)	Ellifritt #1
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)	
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Carnegie Natural Gas Co. (Name) ____ (Buyer Code)
(b) Date of the contract:	Mo. Day Yr.
(c) Estimated annual production:	18 MMcf.

	(a) Base Price ($/MMBTU)	(b) Tax	(c) All Other Prices (Indicate (+) or (-).)	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	2.444	____	____	____
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	2.444	____	____	____

9.0 Person responsible for this application:

David M. Chambers (Name) President (Title)

David M. Chambers (Signature)

May 11, 1981 (Date Application is Completed) 304/ 485 - 1730 (Phone Number)

Agency Use Only
Date Received by Jurisd. Agency: MAY 13 1981
Date Received by FERC

RECEIVED Office of Oil and Gas JUN 25 2015 Department of Environmental Protection

Ellifritt #1 Well
Doddridge County, WV
API #47-017-02859

17-2859

Objective: Plug and Abandon Wellbore.

Pipe Schedule:

1. 8-5/8" set @ 254'. Cemented to surface
2. 4-1/2" set @ 2,450' with estimated TOC @ 150'

Elevation: 1062'

Oil and Gas Zones:

1. Big Injun (gas): 2010'

Procedure:

1. Coordinate and schedule casing jacks.
2. Notify WVDEP prior to commencing work, for plug witnessing (Doddridge County Inspector)
3. Move in and rig up flat tank and frac tank (No pits will be utilized).
4. Move in rig up service unit.
5. Nipple up BOPE and test – check and report surface pressure including bradenhead pressure.
6. Kill well.
7. Rig up wireline and lubricator.
8. Make gauge ring run to CIBP Setting depth = 2,046' (20' above uppermost perf per well records). Pull out of hole.
9. Lubricate in a cast iron bridge plug and set at 2,046'. Pull out with wireline.
10. Pressure test CIBP to 500 psi.
11. Pick up tubing, run in hole.
12. Tag and verify bridge plug setting depth.
13. Pull one foot above bridge plug.
14. Pump 100' plug from CIBP to 200' above CIBP. Cement = 22 sacks Class A with 2% CaCl2; yield = 1.18 ft^3/sk; water = 5.2 gals/sk; (Volume includes 20% excess).
15. Slowly pull out of cement plug. Pull tubing 200' and reverse circulate tubing clean.
16. Wait on cement 8hrs.
17. Load hole w/ gel (Must be freshwater with a minimum of 6% bentonite) - approximately 169 ft^3 or 30 bbls.
18. Run in tubing and verify top of cement plug at 1,846'.
19. If top of cement is deeper than 1,846'
    a. Mix and spot cement so top is a minimum depth of 1,846'.
    b. Cement quantity to be determined but will be Class A with 2% CaCl2; yield = 1.18 ft^3/sk; water = 5.2 gals/sk; 20% excess.
    c. Pull 200' of tubing and reverse circulate tubing clean (maintain hole full of gel).
    d. Wait on cement 8 hours.
    e. Repeat steps until TOC is shallower than 1,846'.
    f. Tag TOC after each/every plug set.
20. Pull tubing out of hole
21. Run CBL from 1846' to surface
22. Locate Top of Cement around 4.5" casing (estimated @ 150').
23. If Top of Cement is shallower than 254', then skip to step 25.
24. If top of cement is deeper than 254',
    a. Trip in with wireline and run free point above top of cement.
    b. Trip out. Trip in and fire backoff charge at xxxx' (depth as determined via freepoint).
    c. Back off casing at approximately xxxx' (depth a function of freepoint).
    d. Pull out with wire line.
    e. Rig up casing jacks and pull 4.5" casing – lay down casing.
    f. Pick up tubing and run in to 304'.
    g. Set class A cement plug from 304' to 25' below ground level (118 sks).
    h. Trip out of hole and wait on cement
    i. Go to step 28.

Need Elevation Plug from 1050 - 950'

DCW
6-24-2015

25. Pick up tubing, run in hole to 304'; Maintain hole full of gel.
26. Set Class A cement plug from 304' to 25' below ground (31 sks).
27. Trip out of hole
28. During construction of new facility, cut off casing at 22' below ground level.
29. Weld marker plate with API number (API No: 47-0174-02859).
30. Establish remote dry hole marker & provide direction and distance to DEP.

17-2859

WW-4A
Revised 6-07

1) Date: June 16, 2015
2) Operator's Well Number
Ellifritt #1

3) API Well No.: 47 - 017 - 02859

STATE OF WEST VIRGINIA
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: Antero Resources Corporation
Address: 1615 Wynkoop Street
Denver, CO 80202

(b) Name
Address

(c) Name
Address

6) Inspector: Douglas Newlon
Address: 601 57th Street SE
Charleston, WV 25304
Telephone: 304-932-8049

5) (a) Coal Operator
Name: NO DECLARATIONS ON RECORD WITH COUNTY
Address

(b) Coal Owner(s) with Declaration
Name: NO DECLARATIONS ON RECORD WITH COUNTY
Address

Name
Address

(c) Coal Lessee with Declaration
Name: NO DECLARATIONS ON RECORD WITH COUNTY
Address

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

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

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

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia 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: Jack D. McCune
By: Jack McCune *Jack McCune*
Its:
Address: 4695 WV HWY 5W
Glenville, WV 26351
Telephone: 304-462-8182

WEST VIRGINIA COMMISSIONER
TIMOTHY RAYMOND RAINS
4216 N. PORTLAND AVE.,
STE. 104
OKLAHOMA CITY, OK 73112-6353
MY COMMISSION EXPIRES MAR. 11, 2019

Subscribed and sworn before me this 18th day of June 2015
Notary Public *Timothy Raymond Rains*
My Commission Expires March 11, 2019

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 depprivacyoffier@wv.gov.

RECEIVED
Office of Oil and Gas
JUN 25 2015
WV Department of
Environmental Protection

SURFACE OWNER WAIVER

Operator's Well Number Ellifritt #1

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
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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.

RECEIVED
Office of Oil and Gas
JUN 25 2015
WV Department of Environmental Protection

FOR EXECUTION BY A NATURAL PERSON ETC.

_____ Date _____
Signature

FOR EXECUTION BY A CORPORATION, ETC.

Name Antero Resources Corporation
By Ward McNally
Its VP, Reserves Planning & Midstream Date 6/16/2015

Signature Date

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 017 - 02859 P
Operator's Well No. Elliott #1

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

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator Name Jack D McCune OP Code 494502446

Watershed North Fork Hughes River Quadrangle Pennsboro

Elevation 1062' County Doddridge District Central

Description of anticipated Pit Waste: No pit will be used at this site (All fluids will be stored in tanks and either reused or hauled off site.)

Will a synthetic liner be used in the pit? N/A.

DCW 6-24-2015

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
_____ Underground Injection (UIC Permit Number _____)
X Reuse (at API Number Future permitted well locations when applicable. API# will be provided on Form WR-34)
X Off Site Dispposal (Meadowfill Landfill Permit #SWF-1032-98)
_____ Other (Explain _____

Proposed Work For Which Pit Will Be Used:

_____ Drilling _____ Swabbing
_____ Workover _____ Plugging
_____ Other (Explain _____

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 Jack McCune

Company Official (Typed Name) Jack McCune

Company Official Title _____

Subscribed and sworn before me this 18TH day of JUNE, 20 15

Timothy Raymond Rains

Notory Public

My commission expires MARCH 11, 2019

WEST VIRGINIA COMMISSIONER
TIMOTHY RAYMOND RAINS
4216 N. PORTLAND AVE.,
STE. 104
OKLAHOMA CITY, OK 73112-6353
MY COMMISSION EXPIRES MAR. 11, 2019

17-2859

Form WW-9

Operator's Well No. Ellifritt #1

LEGEND

Property Boundary
Road
Existing Fence
Planned Fence
Stream
Open Ditch
Rock
North N
Buildings
Water wells
Drill site

Diversion
Spring
Wet Spot
Drain Pipe with size in inches
Waterway
Cross Drain
Artificial Filter Strip
Pit: cut walls
Pit: compacted fill walls
Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1.1 acres Prevegetation pH _____

Lime 2-3 Tons/acre or to correct to pH 6.5

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

Mulch 2-3 Tons/acre (Hay, straw or wood fiber (will be used where needed)

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Please reference Table IV-3 on page 3 of the Ellifritt #1 Well Plugging Plan		Please reference Table IV-4A on page 3 of the Ellifritt #1 Well Plugging Plan	
*or type of grass seed requested by surface owner		*or type of grass seed requested by surface owner	

Attach:
Drawing(s) of road, location,pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

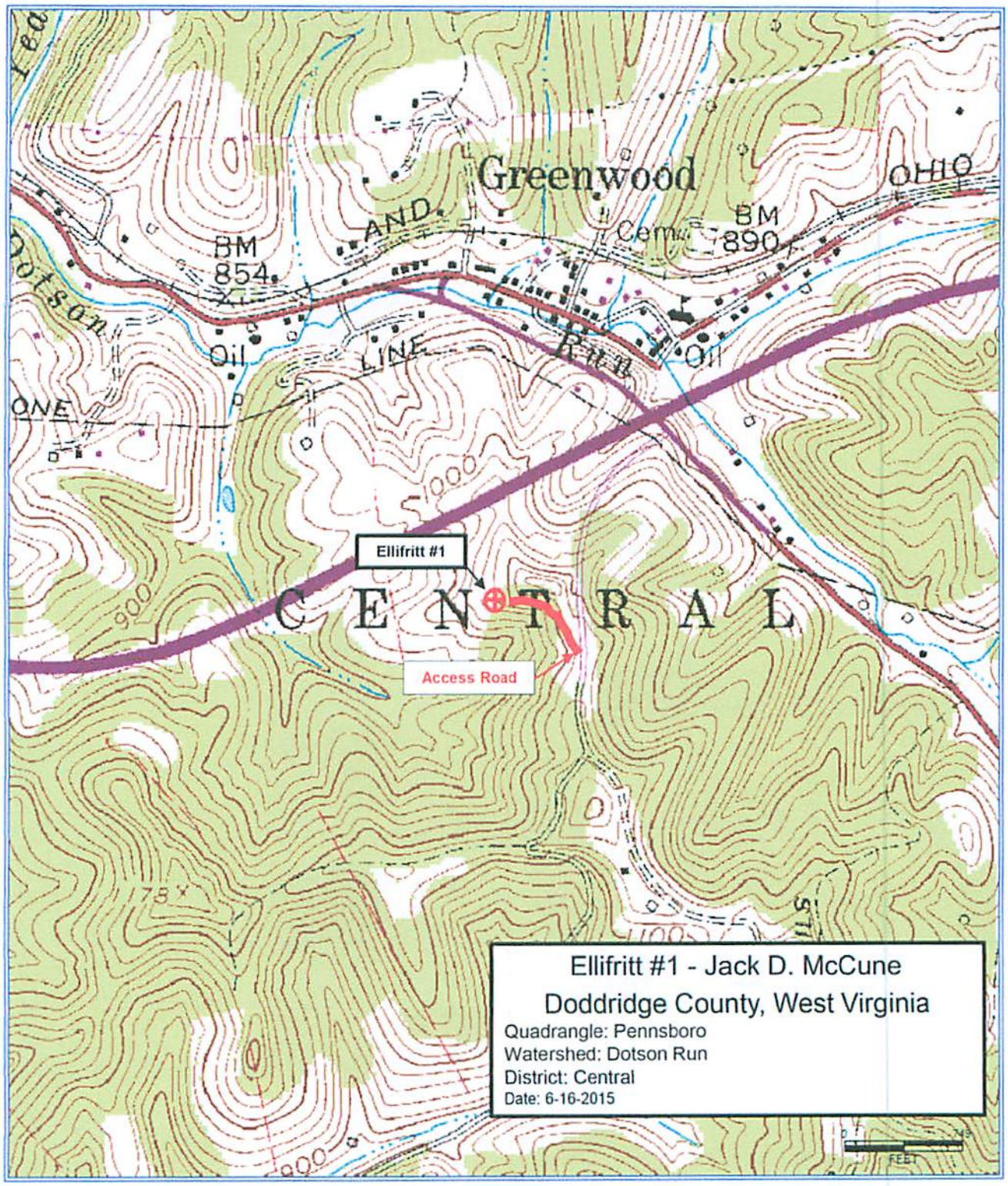
Plan Approved by: Douglas Newlon

Comments: Control Erosion as required

Title: Oil + Gas inspector Date: 6-24-2015

Field Reviewed? (_____) Yes (✓) No

17-2859


Greenwood
OHIO
AND
BM
854
BM
890
Cem
Dotson
Oil
LINE
Run
Oil
ONE
1000
900
Ellifritt #1
C E N T R A L
Access Road
Ellifritt #1 - Jack D. McCune
Doddridge County, West Virginia
Quadrangle: Pennsboro
Watershed: Dotson Run
District: Central
Date: 6-16-2015
FEET

WW-7
8-30-06

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

API: 47-017-02859 WELL NO.: Ellifritt #1

FARM NAME: Antero Resources Corporation

RESPONSIBLE PARTY NAME: Jack D. McCune

COUNTY: Doddridge DISTRICT: Central

QUADRANGLE: Pennsboro

SURFACE OWNER: Antero Resources Corporation

ROYALTY OWNER: James R. Sandstrom

UTM GPS NORTHING: 4346720.157

UTM GPS EASTING: 509285.560 GPS ELEVATION: 1062'

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 X : Post Processed Differential X

Real-Time Differential ____

Mapping Grade GPS ____: Post Processed Differential ____

Real-Time Differential ____

4. **Letter size copy of the topography map showing the well location.**

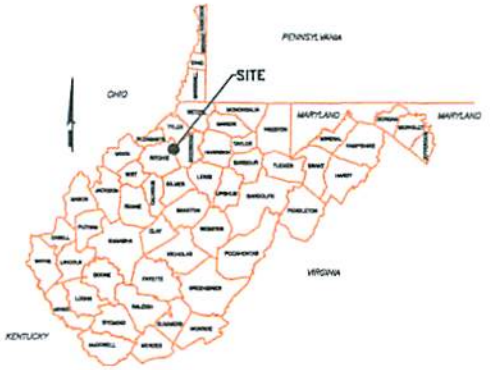
I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Jack McCune _____ 6/16/2015

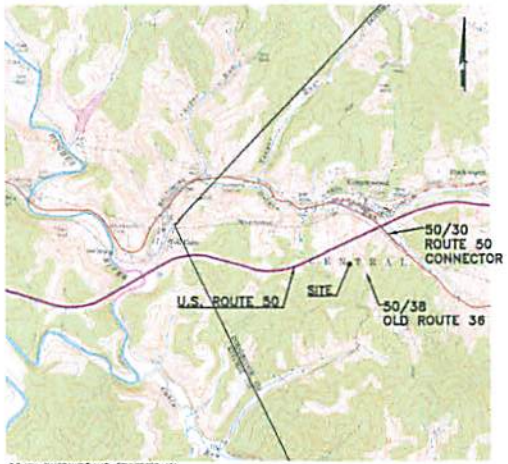
Signature Title Date

DCW
6-24-2015

WELL PLUGGING PLAN
FOR
API #47-017-02859 ELLIFRITT #1 WELL
CENTRAL TAX DISTRICT, DODDRIDGE COUNTY, WV



LOCATION MAP
SCALE – 1"=300,000'



7.5 MIN. QUADRANGLE MAP: PENNSBORO, WV

LOCATION MAP
SCALE – 1"=2000'

WEST VIRGINIA 811
CALL BEFORE YOU DIG! Dial 811 or 800.245.4848

AT LEAST 48 HOURS, BUT NOT MORE THAN 10 WORKING DAYS (INCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THESE ACTIVITIES SHALL CONTACT MISS UTILITY OF WEST VIRGINIA AT 811 OR 1-800-245-4848.

GENERAL NOTES

1. THE TOPOGRAPHIC SURVEY UTILIZED FOR THIS BASE WAS PERFORMED BY RETTEW, FEBRUARY 2015.
2. THE HORIZONTAL DATUM IS WEST VIRGINIA STATE PLANE, NORTH AMERICAN DATUM 1983 (NAD 83), NORTH ZONE.
3. THE VERTICAL DATUM IS WEST VIRGINIA STATE PLANE, NORTH AMERICAN DATUM 1988 (NAVD 88).
4. THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION PRIOR TO EXCAVATION BY NOTIFYING MISS UTILITY OF WEST VIRGINIA AT 1-800-245-4848.
5. A WETLANDS PRESENCE/ABSENCE SURVEY WAS PERFORMED BY DAI ASSOCIATES, INC. IN MAY 2015.
6. THE CUT & FILL SUMMARY CALCULATIONS PRESENTED ON THIS PLAN ARE FOR PERMITTING AND INFORMATIONAL PURPOSES ONLY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY EXISTING GRADES AND TO VERIFY EARTHWORK VOLUMES, METHODS AND PROCEDURES. ANY ISSUES ARE TO BE BROUGHT TO THE ENGINEERS AND OWNERS ATTENTION PRIOR TO COMMENCEMENT OF WORK.
7. ALL EXISTING UTILITIES HAVE BEEN SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION.

LOCAL ANTERO OFFICE

175 ELK CREEK ROAD MT. CLARE, WV 26408 PHONE (304) 622-3842	535 WHITE OAKS BLVD. BRIDGEPORT, WV 26330 PHONE (304) 842-4100

LOCAL CONTACTS:
ELI WAGONER–ENVIRONMENTAL ENGINEER
PHONE (304) 842-4068
CELL (304) 476-9770

JOHN RANCAK–OPERATIONS SUPERINTENDENT
CELL (917) 368-1553

SHAWN BONNETT–CONSTRUCTION SUPERVISOR
PHONE (304) 842-4341
CELL (304) 841-0071

ROBERT MINKS–DESIGN MANAGER
PHONE (304) 842-4403
CELL (304) 827-7408

SOILS CLASSIFICATION

BdE	BURPIN–PLANDIT COMPLEX, 25 TO 35 PERCENT SLOPES
CdE	BURPIN–PLANDIT COMPLEX, 25 TO 70 PERCENT SLOPES
BdG	BURPIN–UPSHUR SILT LOAMS, 15 TO 25 PERCENT SLOPES
UA	UNCLASSIFIED, SMOTHED

LIST OF DRAWINGS

1 OF 3 .....COVER SHEET
2 OF 3 .....OVERALL DRAWING/ENR PLAN PHASE I
3 OF 3 .....NOTES AND DETAILS

LOCATION COORDINATES

	EXISTING ACCESS ROAD	EXISTING WELL
WV SPCS NORTH, NAD 27	N [illegible] E [illegible]	N [illegible] E [illegible]
WV SPCS NORTH, NAD 83	N [illegible] E [illegible]	N [illegible] E [illegible]
UTM (METERS) ZONE 17, NAD83	N [illegible] E [illegible]	N [illegible] E [illegible]
LAT & LONG, NAD83	LAT 39-19-08.8[illegible] LONG -80-53-34.3[illegible]	LAT 39-19-11.1[illegible] LONG -80-53-32.4[illegible]

FOR RETTEW ASSOCIATES BY:

NO.	DATE	REVISION

AS NOTED

MANAGER: ANDREW LEVINE, PE
DESIGN BY: WCB
DWG BY: MCD
CHKD BY: MCD
UPDATE BY: WCB
SURV. CREW: N/A
PROJECT NO. N/A

CLIENT
ANTERO RESOURCES CORPORATION
1615 WYNKOOP STREET
DENVER, COLORADO 80202

Antero Resources

RETTEW

RETTEW Associates, Inc.
Main Office: 3020 Columbia Ave., Lancaster, PA, Ste. 305
Tech. Center: 8 Lowe Blvd., Conshohocken, PA, Ste. 100
Phone: (412) 446-1733 Fax: (412) 446-1733
Email: info@rettew.com
Website: www.rettew.com

COVER SHEET
WELL PLUGGING PLAN
API #47–017–02859
ELLIFRITT #1 WELL
CENTRAL TAX DISTRICT DODDRIDGE COUNTY, WV

DATE: JUNE 12, 2015
SHEET NO. 1 OF 3
DWG. NO. 095452132

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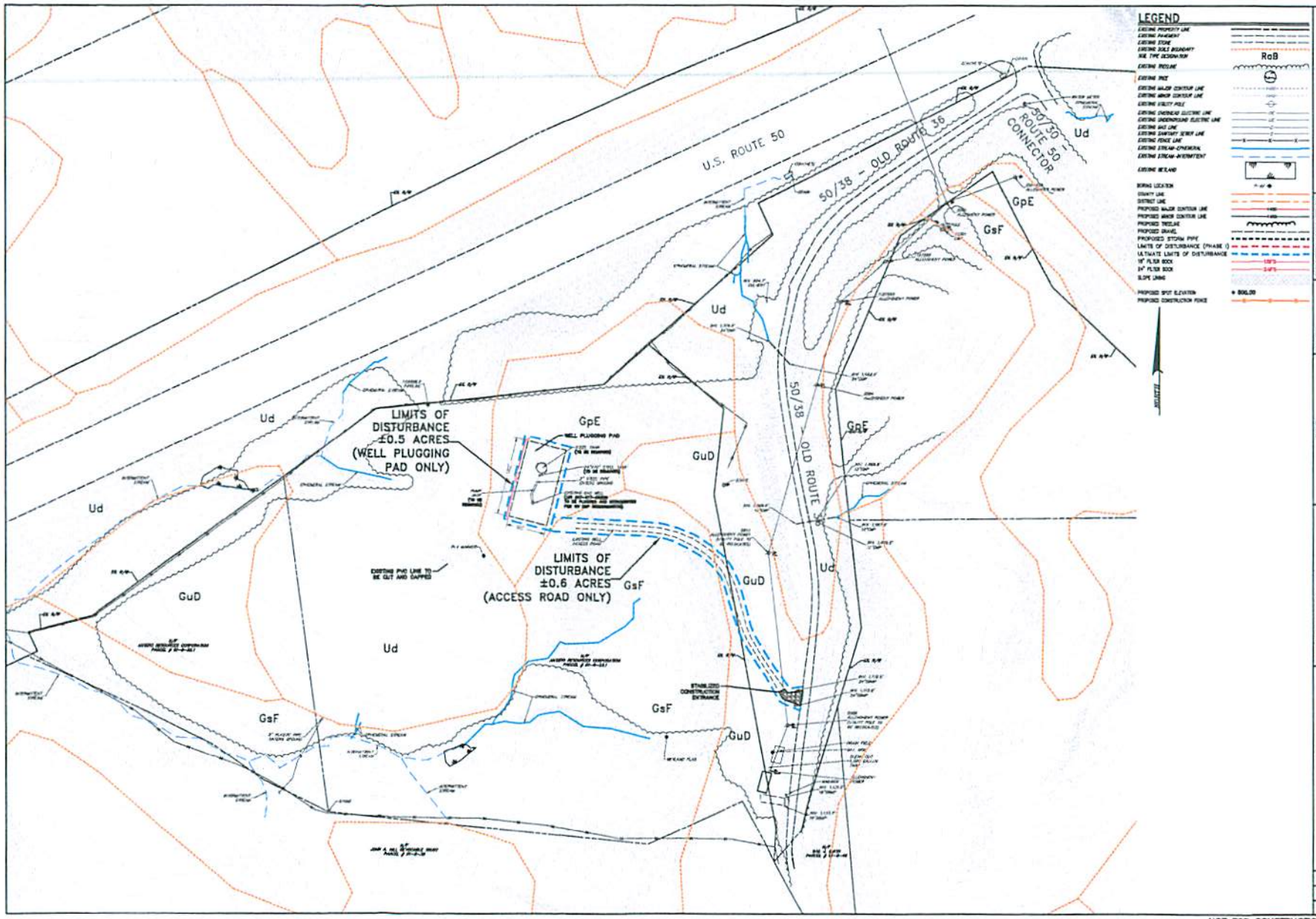


NOT FOR CONSTRUCTION/NOT FOR BIDDING

REVEGETATION SPECIFICATIONS:

TEMPORARY SEEDING

a. GENERAL CONDITIONS WHERE PRACTICE APPLIES

[illegible]

b. SEED MIXTURES AND PLANTING DATES

[illegible]

c. SEED APPLICATION

[illegible]

PERMANENT SEEDING

a. GENERAL

[illegible]

b. LIME AND FERTILIZER

[illegible]

c. PERMANENT SEED MIXTURES

[illegible]

d. SEEDING FOR WILDLIFE HABITAT

[illegible]

MULCHING

[illegible]

EROSION AND SEDIMENTATION CONTROL NOTES

[illegible]

TEMPORARY EROSION CONTROL MEASURES

[illegible]

CONSTRUCTION SEQUENCE

[illegible]

SCHEDULE OF MAINTENANCE OF EROSION & SEDIMENTATION CONTROLS

[illegible]

FILTER SOCK

1. THE FILTER SOCK SHALL BE INSPECTED AFTER EVERY RUNOFF EVENT AND WEEKLY. ANY NECESSARY REPAIRS WILL BE MADE IMMEDIATELY.
2. ACCUMULATED SEDIMENT WILL BE REMOVED AS REQUIRED TO KEEP THE FILTER SOCK FUNCTIONAL. IN ALL CASES, REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FILTER SOCK.
3. ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FILTER SOCK.
4. ACCUMULATED SEDIMENT REMOVED FROM FILTER SOCKS SHALL BE SPREAD, SEEDED & MULCHED IN AN AREA NOT SUBJECT TO EROSION.

TABLE IV-1
RECOMMENDED SEEDING DATES FOR PERMANENT AND TEMPORARY COVER UNLESS OTHERWISE SPECIFIED.

PLANTING DATES	SUITABILITY
MARCH 1 – APRIL 15 AND AUGUST 1 – OCTOBER 1	BEST SEEDING PERIODS
APRIL 15 – AUGUST 1	HIGH RISK – MOISTURE STRESS LIKELY
OCTOBER 1 – DECEMBER 1	HIGH RISK – FREEZE DAMAGE TO YOUNG SEEDLINGS
DECEMBER 1 – MARCH 1	GOOD SEEDING PERIOD. DORMANT SEEDING.

TABLE IV-2
ACCEPTABLE FERTILIZER RECOMMENDATION IN ABSENCE OF SOIL TEST

SPECIES	N(LBS/AC)	P2O5(LBS/AC)	K2O(LBS/AC)	EXAMPLES REC. (PER ACRE)
COOL SEASON GRASS	40	80	80	400LBS 10-20-20
CS GRASS & LEGUME	30	60	60	300LBS 10-20-20
TEMPORARY COVER	40	40	40	200LBS 10-10-10

TABLE IV-3
TEMPORARY COVER SUITABLE FOR ESTABLISHMENT IN WEST VIRGINIA

SPECIES	RATES IN LBS PER ACRE	OPTIMUM SEEDING DATES	DRAINAGE	pH RANGE
ANNUAL RYEGRASS	40	[illegible]	WELL-POORLY	[illegible]
FIELD BROMEGRASS	40	[illegible]	WELL -MOD. WELL	[illegible]
SPRING OATS	[illegible]	[illegible]	WELL-POORLY	[illegible]
SUDANGRASS	40	[illegible]	WELL-POORLY	[illegible]
WINTER RYE	[illegible]	[illegible]	WELL-POORLY	[illegible]
WINTER WHEAT	[illegible]	[illegible]	WELL -MOD. WELL	[illegible]
JAPANESE MILLET	30	[illegible]	WELL	[illegible]
REDTOP	[illegible]	[illegible]	WELL	[illegible]
ANNUAL RYEGRASS	[illegible]	[illegible]	WELL-POORLY	[illegible]
SPRING OATS	[illegible]	[illegible]	WELL-POORLY	[illegible]

NOTE: THESE RATES SHOULD BE INCREASED BY [illegible] IF PLANTED APRIL 15 – AUGUST 1 AND OCTOBER 1 – MARCH 1.

TABLE IV-4a
PERMANENT SEEDING MIXTURES SUITABLE FOR ESTABLISHMENT IN WEST VIRGINIA

[illegible]

TABLE IV-4b
PERMANENT SEEDING MIXTURES SUITABLE FOR ESTABLISHMENT IN WEST VIRGINIA (WILDLIFE & FARM FRIENDLY)

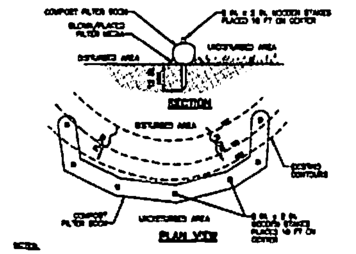
[illegible]

TABLE IV-5
LIME AND FERTILIZER APPLICATION TABLE

[illegible]

TABLE IV-6
MULCH MATERIALS RATES AND USES

[illegible]

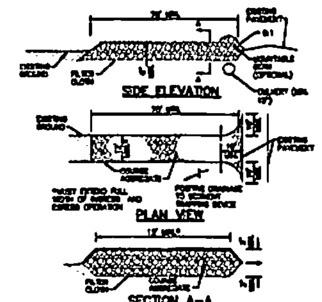


NOTES:

[illegible]

COMPOST FILTER SOCK

NOT TO SCALE



NOTES:

[illegible]

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

ANTERO RESOURCES CORPORATION

Antero

NOTES AND DETAILS
WELL PLUGGING PLAN

API #47-017-02859
ELLIFRITT #1 WELL

CENTRAL TAX DISTRICT — DODDRIDGE COUNTY, WV

DATE: [illegible]
SHEET NO. 3 OF 3
DWG. NO. [illegible]

NOT FOR CONSTRUCTION/NOT FOR BIDDING