

#### 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

October 03, 2014

#### WELL WORK PERMIT Re-Work

This permit, API Well Number: 47-4302056, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: 4417

Farm Name: ADKINS, VIOLA

API Well Number: 47-4302056

Permit Type: Re-Work Date Issued: 10/03/2014

#### PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

#### **CONDITIONS**

- 1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
- 3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
- 4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 5. 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.
- 6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours
- 7. Well work activities shall not constitute a hazard to the safety of persons.
- 8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

API Well Number: 047 - 043 - 02056 W

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION

de # 5187245

1) Well Operator CHESAPEAKE APPALACHIA, L.L.C. 494477557 Lincoln Union Hager, WV Quadrangle Operator ID County District 2) Operators Well Number: 804417 WO 3) Elevation: 682' 4) Well type: (a) Oil Gas X

(b) If Gas: Production X Underground Storage \_\_\_\_\_
Deep\_\_\_\_ Shallow X

5) Proposed Target Formation(s): Injun/Big Lime Proposed Target Depth: 1331'-1576'

6) Proposed Total Depth: 1675' Formation at proposed Total Depth: Lime Shells

7) Approximate fresh water strata depths: Behind Existing Casing

8) Approximate salt water depths: 675'

9) Approximate coal seam depths: 595'

10) Approximate void depths, (coal, Karst, other): None known

11) Does land contain coal seams tributary to active mine? No

12) Proposed Well Work: See Attached Well Workover Procedure

13) <u>CASING AND TUBING PROGRAM</u>

TYPE	le.	SPECIFICATIO	NS	FOOTAGE INT	TERVALS	CEMENT
	SIZE	GRADE	WEIGHT PER FT.	FOR DRILLING	LEFT IN WELL	FILL-UP (CU.FT.)
Conductor	10"			19	19	Existing Casing
Fresh Water						
Coal						
Intermediate	6 5/8"			1335	1335	Existing Casing
Production	4 1/2"	M-65	9.5		1675	65
Tubing	2 3/8"	J	4.6	AS	NEEDED	
Lining						

PACKERS: Kind Hookwall Sizes 4 ½" x 6 ½"

Depths set Approximately 1675'

18/28/14

#### 804417 WORKOVER PROCEDURE

- 1) Safety first! Hold PJSA before all jobs
- 2) Prepare road and location, MIRU Service Rig
- Pull 2 3/8" tubing and packer. NOTE: If packer will not pull, cut 2 3/8" at freepoint (approximately 1650') and pull.
- 4) Check TD with 6" bit on tools
- 5) Run open hole logs and evaluate to be sure project is economic
- 6) Run 4 1/2" casing with appropriate float equipment to approximately 1650'
- 7) Cement 4 1/2" casing from shoe to approximately 1125', WOC
- 8) Run cement bond log, swab and perforate
- 9) MIRU pumping company and stimulate zone or zones as determined from OHL evaluation.
- 10) Flow back well starting with 3/8" choke and increasing size as needed
- 11) Finish clean up, check TD, record final open flow and rock pressure
- 12) Reclaim and turn in line

RDT 08/29/14

#### United Fuel Gas Company

API: 47-043-02056

. RECORD OF WALL No. 1 on the	× CA	THE AND TU	e)%#	YEAY BROTH MAY
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Drilling Completed April 9th, 19; Drilling to cost per foot Contractor for	25 4 3 2		2081	Date Shot
Address Owned by Superior Cil & Gas C Sold to United Evel Gas Company	O Date	OHUY IH		Oll Pumped lible, 1st 24 lies
Orliller's News September 2nd,			Tuhing or Casing	1
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Salt Sand	680	1050	400	$\sim$
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Maxon Sand	1245	1295	50	RDT pelit
Little Lime	1298	1323	28	. 50.
Pencil Cave	1323	1327	4	
Big Lime	1331	1523	192	Show of gas and oil at 1401 3/14/
Red Rook	1023	1555	32	(67/2)
Big Injun Sand	1555	1575	20	
Lime Shells	1578	1750	178	
Borea Sand	2040	2057	17	Gag 2042-2056
Slate (Total depth)	2079		}	
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				RECEIVID
				NOV 10 1930
				WORK IN PROGRESS
				DEPARTMENT

WW2-A (Rev. 6-07) 1) Date: August 27, 2014

2) Operators Well Number 804417 WO State County Permit

3) API Well Number 47 -043 - 02056

#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4	Surface	owner(s	to (a	be served:	

Name: David Sias (a) Address: P.O. Box 484

Branchland, WV 25506

(a) Coal Operator: Name: None

Address:

Name: (b)

Gary D. Moore

Address: 138 Bellomy Road Branchland, WV 25506

b) Coal Owner(s) with Declaration:

See Attached Sheet Name:

Address:

(c) Name: Address:

6) Inspector:

Name: Ralph Triplett

Address: 5539 McClellan Highway

Branchland, WV 25506

Telephone: 304-389-0350

Name: Address:

Coal Lessee with Declaration: (c)

> Name: None

Address:

#### TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

OR	Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas
<u>-</u>	Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2). I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application
a local	ion plat, and accompanying documents pages 1 though on the above named parties, by:  Personal Service (Affidavit attached)  X Certified Mail (Postmarked postal receipt attached)
under t	Publication (Notice of Publication attached) I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued his application.
applica	I certify under penalty of law that I have personally examined and am familiar with the information submitted on this

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.

Well Operator:

CHESABEAK

By:

Quest Stal Hotary Fullie

Scales of West Vitoria

Phyllis A. Copley ard Circle Hurricane, WV 256

Il's Address:

Manager - Operations, Appalachia South

P.O. Box 18496

Oklahoma City, OK 73154-0496

Telephone:

405-935-4073

Subscribed and sworn before me this

august day of June 2014

September 16, 2018

Notary Public,

My Commission expires

Oil and Gas Privacy Notice

The office of Oll and 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 Free of Information Act requests. Our office will appropriately secure your personal Information. If you have questions about our use of your personal information, please contact DEP's Chief Privacy Officer at 0/03/2014 depprivacyofficer@wv.gov.

Operator's Well Number: 804417 WO

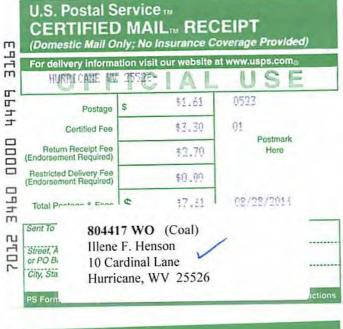
API Well Number: 47 - 043 - 02056 ₩

#### 5) b) Coal Owner(s) with Declaration:

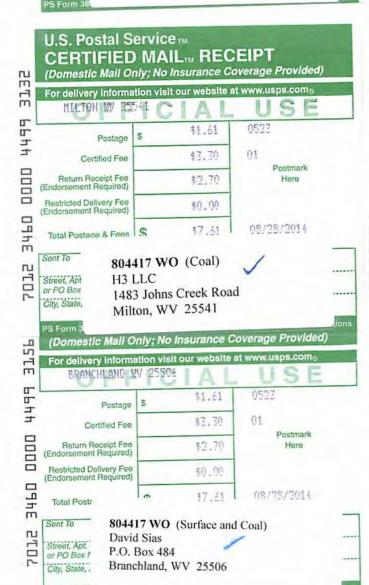
- 1) David Sias P.O. box 484 Branchland, WV 25506
- 2) H3 LLC 1483 Johns Creek Road Milton, WV 25541
- 3) Brian Keith Bellomy 145 Bethesda Drive Ona, WV 25545
- 4) Larry Adkins P.O. Box 421 West Hamlin, WV 25571
- 5) Mervin L. Henson, Jr. 1418 Main Avenue Nitro, WV 25143
- 6) Illene F. Henson 10 Cardinal Lane Hurricane, WV 25526

#### **COAL OPERATOR, OWNER, OR LESSEE WAIVER**

	COAL OF ERATOR	divident, on Leoole Walter
County <u>Lincoln</u>	<del></del>	Operator's Well Number: 804417 WO
Operator: Chesape	ake Appalachia, L.L.C.	API Well Number: 47 – 043 - 02056
	INSTRUCTIONS TO CO	AL OPERATOR, OWNER, OR LESSEE
objection you wish to	o make or are required to r	named on page WW2-A. You are hereby notified that any make by Code 22-6-16, 16, or 17, must be filed with the chief days after the receipt of this application by the Office. Mail
Chief, Office of oil and Department of Environment 601 57 <sup>th</sup> St. SE Charleston, WV 253 (304) 926-0450 external	onmental Protection 304	
		WAIVER
well location has e area of well location no objection to the	examined this proposed on, the well location has e work proposed to be	/ owner / lessee / of the coal under this well location. If a mine map exists which covers the been added to the mine map. The undersigned has done at this location, provided the well operator has not of the West Virginia Code and the governing
FOR EXECUTION BY A	NATURAL PERSON	PRECEIVED Office of Oil and Gas  SEP 0 4 2014  FOR EXECUTION BY A CORPORATION, ETC. Company Name:  H 3 WY Department of Environmental Protection
Signature	Date	By BARBANA E. Hoeft
		Its MANAGER
		9- z - / Y Signature — Date







17	U.S. Postal Service TAM CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)							
3707	For delivery information visit our website at www.usps.com <sub>3</sub>							
6644	Postage	s 31.61 \$ \$7.30	0523					
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7012 3	Street, Apt. N M or PO Box No	4417 WO (Coal) ervin L. Henson, J 418 Main Avenue itro, WV 25143	r.					

52	CERTIFIED MAIL  (Domestic Mail Only; No Insurance Coverage Provided)  For delivery information visit our website at www.usps.com  OHA W 25542 C A L S E						
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70	or PO Bo. 145 I	Bethesda					
	City, State Ona,	WV 25	545				
	PS Form				ctions		

U.S. Postal Service ...

U.S. Postal Service TM

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Total Pr		¢	\$7.61	08/28/201	4
Sent To	804417	wo	(Surface)		
Street, A or PO Bo City, Sta		ellomy	ore Road WV 2550		30000

10/03/2014

Operators Well Number: 804417 WO API Well Number: 47-043-02056

# INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6, Section 8 (d) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that--

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan:
- (2) the parties and recordation data (if recorded) for leases(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	<u>Royalty</u>	Book/Page
Viola Adkins	Chesapeake Appalachia, L.L.C.	1/8	10 / 352

#### Acknowledge of Possible Permitting/Approval in addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- \*WV Division of Water and Waste Management
- \*WV Division of Natural Resources
- \*WV Division of Highways
- \*U.S. Army Corps of Engineers
- \*U.S. Fish and Wildlife Services
- \*County Floodplain coordinator

The applicant further acknowledges that any Office of Oil and gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:

Chesapeake Appalachia, L.L.C.

Much

By:

David Gocke

Its:

Manager - Operations, Appalachia South 014

API Number 47 - 043 - 02056 Operator's Well No. 804417 WO

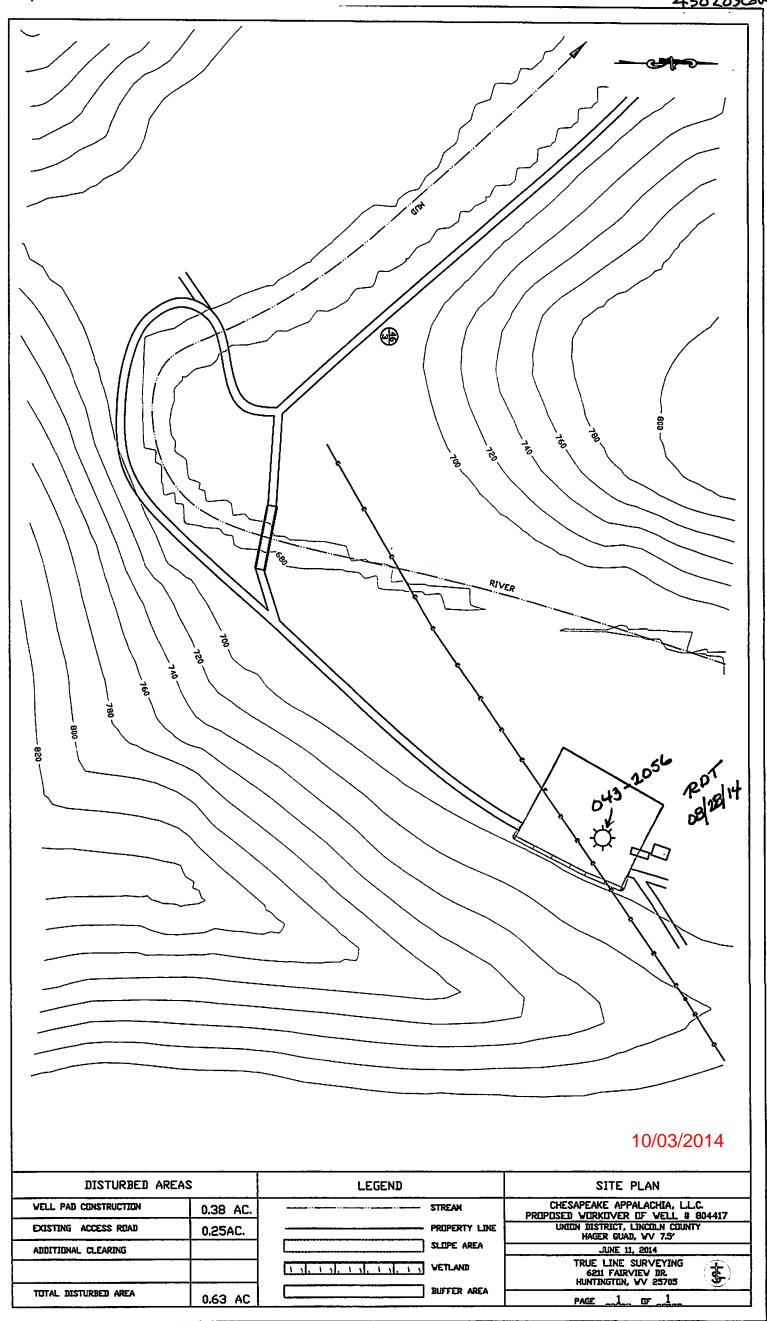
### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

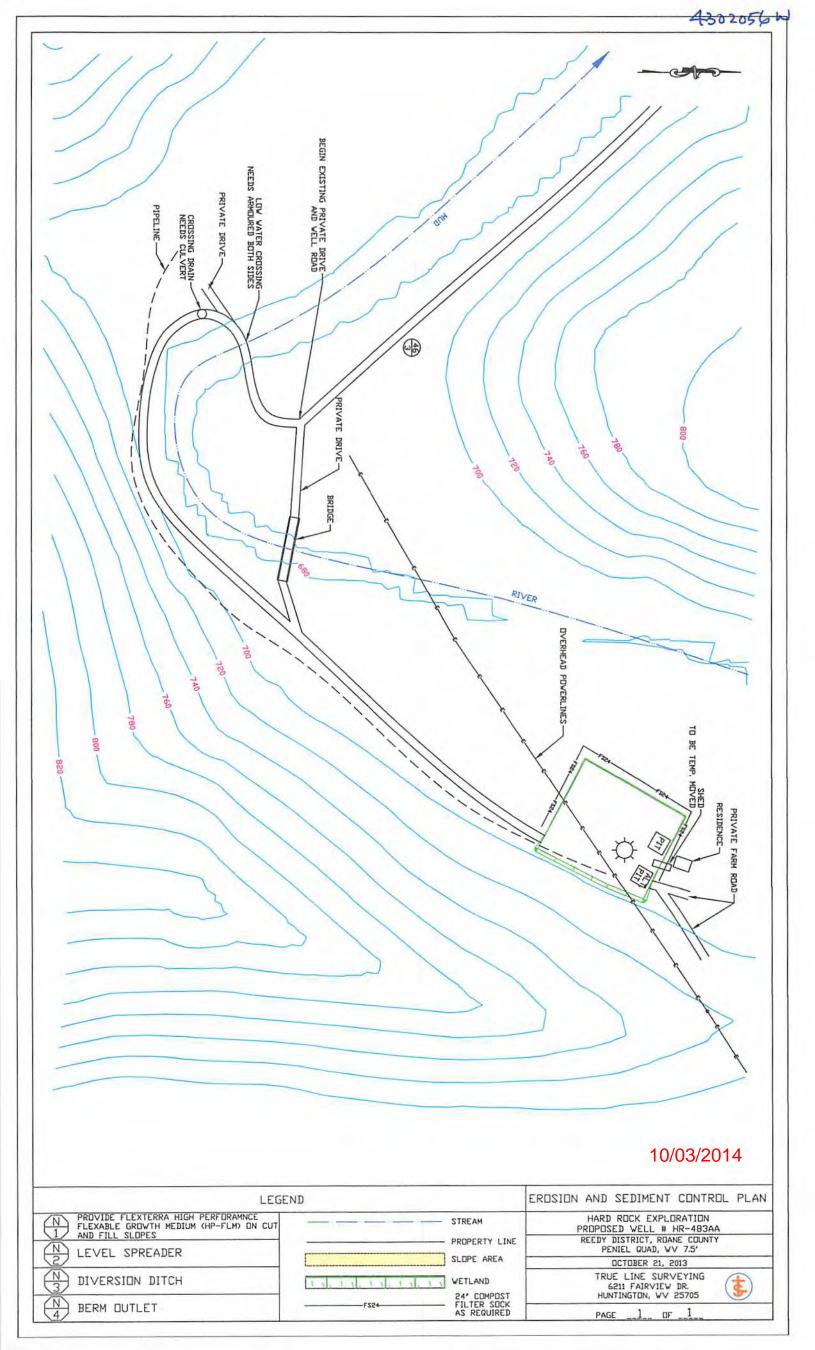
Operator Name	CHESAPEAKE APPALACE	IIA, L.L.C. OP Code	494477557
Water (HUC 10) _	Mud River	Quadrangle Hager, V	NV 7.5'
Elevation: 682'	County Lincoln	District_ Union	
Description of antic	ipated using more than 5,000 b	obls of water to complete the pr	roposed well work: Yes No _X
Will a pit be used fo	or drill cuttings? Yes No _	X (Not drilling)	
If so, please Will a synth	e described anticipated pit was letic liner be used in the pit? Ye	te: Cement and Frac Water es X No If so, what mi	1.7 6 20 MIL
Proposed D	Disposal Method for treated Pit	Wastes:	
	Land Application Underground Injection	on (UIC Permit	
	Reuse (at API Numb X Off Site Disposal (St Other (Explain	per upply form WW-9 for disposal l	ocation)
Will closed loop sys	tem be used? No (Not drillin	<b>(</b> p	
Drilling medium anti	cipated for this well? Air, fresh	water, oil based, etc. None	
If oil based,	what type? Synthetic, petrolei	um, etc	
Additives to be used	I in drilling medium? None		
Drilling cuttings disp	osal method? Leave in pit, lan	dfill, removed offsite, etc. N/A	
If left in pit a	and plan to solidify what mediur	n will be used? (Cement, lime	, sawdust)
Landfill or o	ffsite name/permit number?		-
issued on August 1, understand that the permit and/or other a I certify under this application form responsible for obtai	2005, by the Office of Oil and oprovisions of the permit are enapplicable law or regulation carer penalty of law that I have permit and all attachments thereto an ining The information, I believe penalties for submitting false for submittin	Gas of the West Virginia Division forceable by law. Violations of the lead to enforcement action. It is sometimed and am famined that, based on my inquiry of that the information is true, active mation, including the possible.	Curate, and complete. I am aware that collity of fine or imprisonment.  Collity of fine or imprisonment.  Collity of West Virginia  Phyllis A Copies  Y Commission Explanation 16, 2018  Notary Public
My Commission expi	ires September 16, 2018		10/03/2014

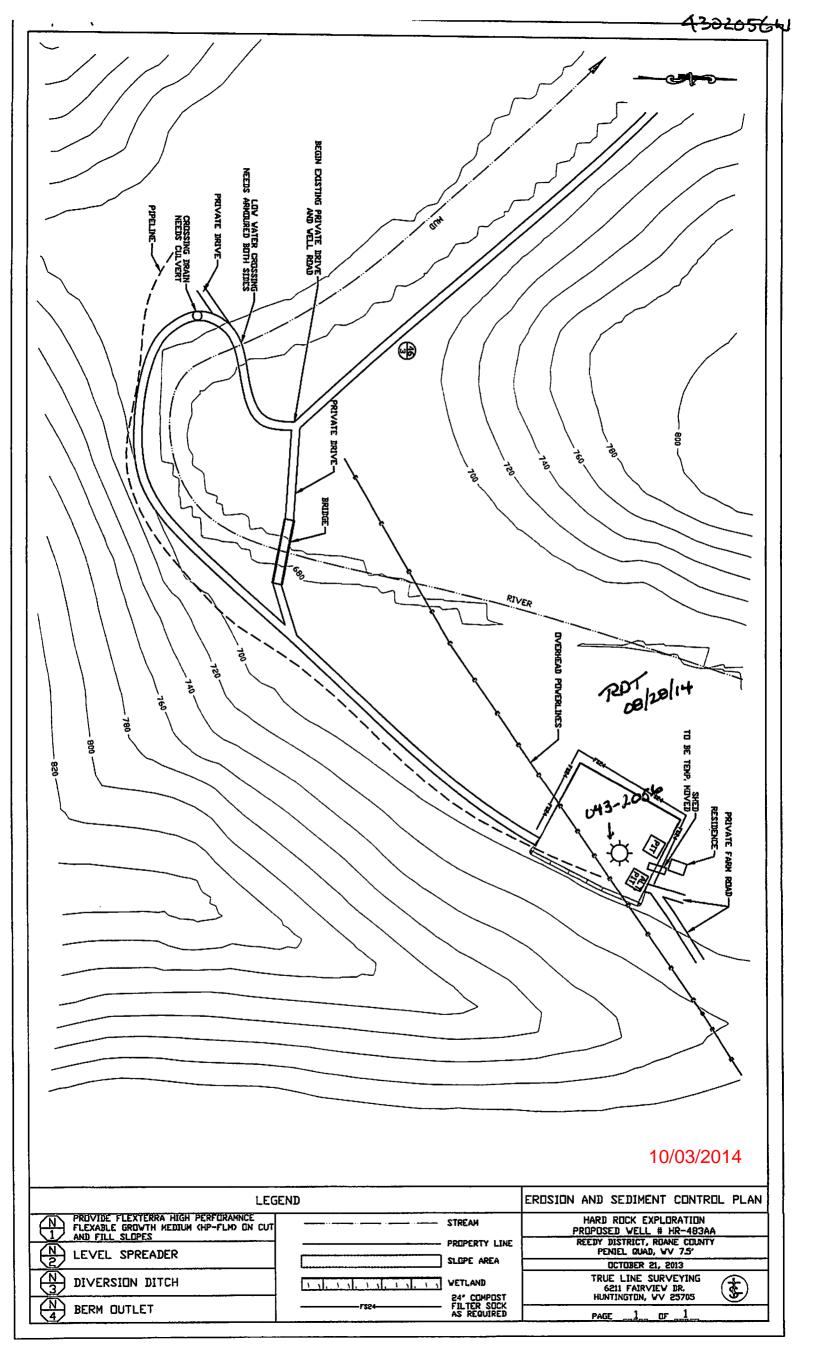
Form WW-9		Operator's Well Number: API Well Number:	804417 WO 47 – 043 -02056
Proposed Revegetation Treatment:	Acres Disturbed	1.0 Prevegetation pH	6.1
Lime 3	ons/acre or to correct to p	pH6.5	
Fertilizer (10-20-20 or equiv	alent) <u>500</u> lbs/acre	(500 lbs minimum)	
Mulch Hay 2 T	ons/acre		
	Seed	d Mixtures	
Area I Seed Type II	os/acre	Seed Type	Area II Ibs/acre
KY 31 4	0	Orchard Gra	ass 15
Alsike Clover 5	<u>.                                    </u>	Alsike Clove	er 5
Annual Rye 1	5		
Attach: Drawing(s) of road, location, pit and p Photocopied section of involved 7.5' t	•	plication.	
Plan Approved : Papple D			
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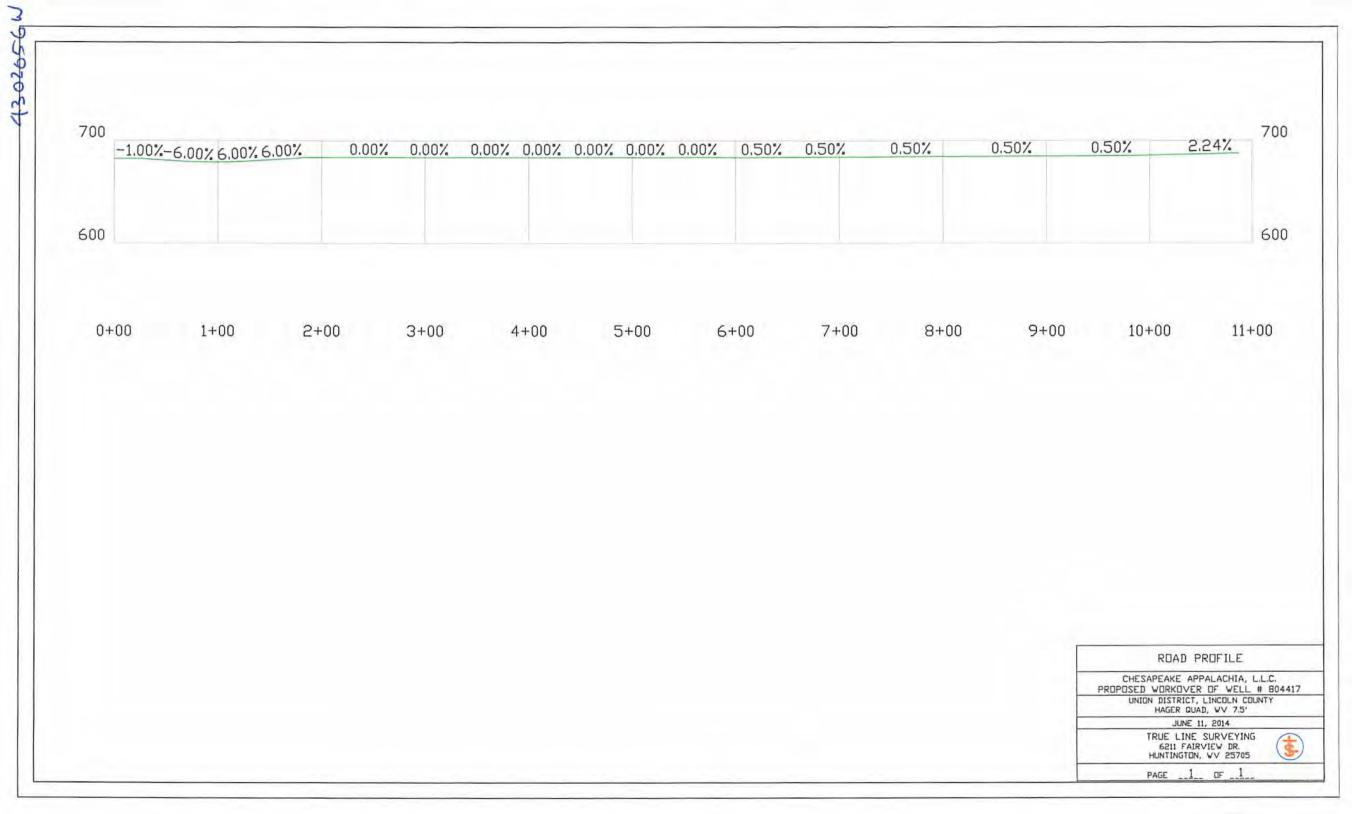
Title: District Inspected Date: August 28, 2014

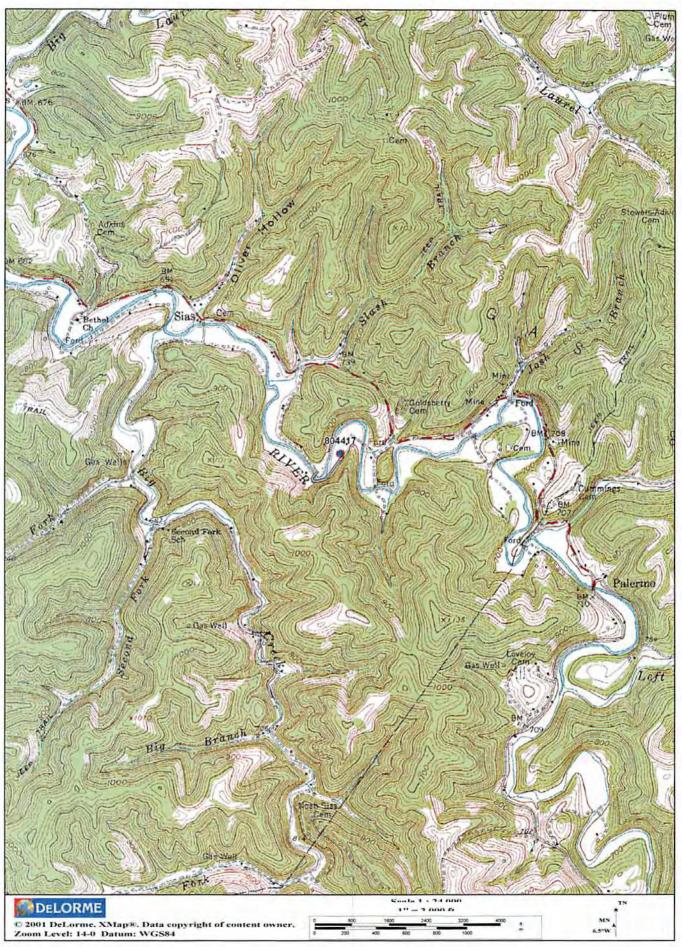
Field Reviewed?

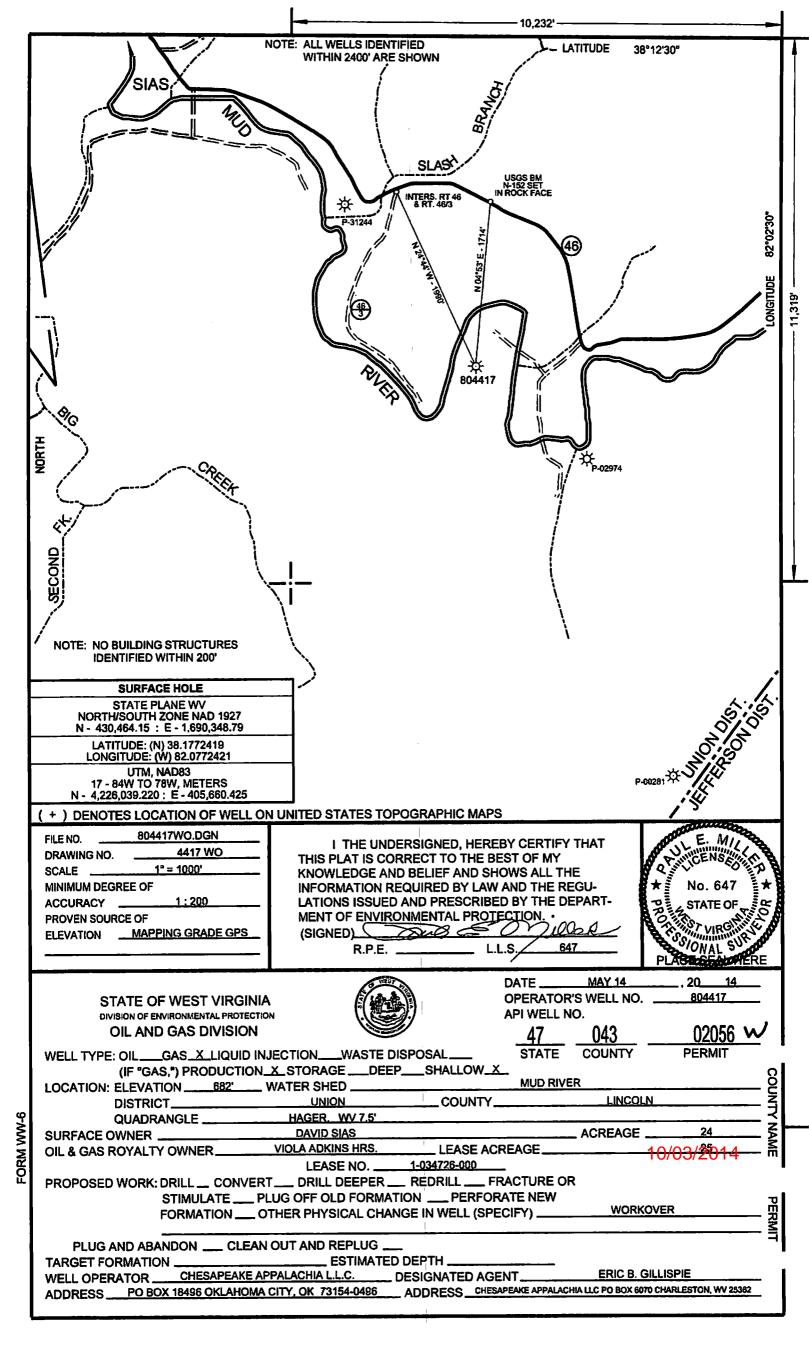












Operator's Well Number: 804417 WO API Well Number: 47 – 043 - 02056 W

### West Virginia Department of Environmental Protection Office of Oil and Gas

#### NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

If no water well or spring is located within 1000 feet, the Chief may require the operator to sample and analyze water from a water well or spring within 2000 feet of the proposed well site.

Be advised, you have the right to sample and analyze any water supply at your own expense.

The laboratory used by the operator to analyze the samples will be approved by the Chief. The operator named below has decided to use the following laboratory to analyze the water samples:

Sampling Contra	
Well Operator _	CHESAPEAKE APPALACHIA, L.L.C.
Address	P.O. Box 18496
	Oklahoma City, OK 73154-0496
Telephone	405-935-4073

FOR OPERATORS USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underlining which one you have selected to sample and analyze. If there are not water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from proposed site.