

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

August 06, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3905236, issued to REED GAS INC, 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.

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James Martin

Operator's Well No: AL-86

Farm Name: APPALACHIAN LAND CO.

API Well Number: 47-3905236

Permit Type: Plugging
Date Issued: 08/06/2014

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</u> 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.

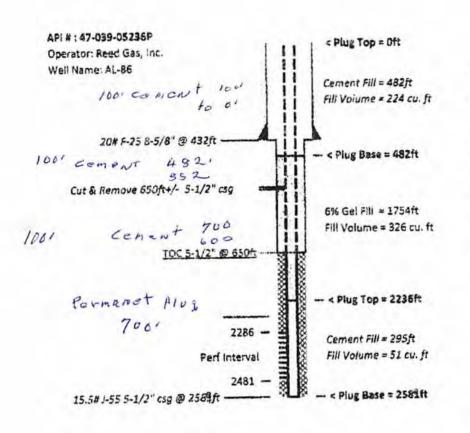
1)Date	6/10	7	20	14
2) Operato	or's	-		
Well No		AL-	86	
3) API Wel	1 No. 4	7- 3	9-	5236P

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

APPLICATION FOR A PI	ERKIT TO PLUG AND ARANDON
4) Well Type: Oil/ Gas _ X / Liqu	nid injection/ Waste disposal/
11 "Gas Production or U	Inderground storage / Shallow
5) Location: Elevation 1430'	Watershed Little Larel Run to Blue Creek
	county Kanawhaquadrangle Mammoth
	_ value and re
5) Well Compator Bood Cas Too	7) Designated Agent James W. Reed Jr.
Address Virginia Street	James W. Reed Jr.
Charleston WV 25	Address Virginia Street
Charleston wv 25	Charleston WV.25301
8) Oil and Gas Inspector to be notified	
Name Terry Urban	Name Duckworth Well Service
Address P.O.Box 1207	Address P.O.Box 6871
Clendenin WV. 25045	Charleston Wv 25362
A STATE OF THE STA	
10) Work Order: The work order for the ma	nner of plugging this well is as follows:
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	-[-,019
Perement Plug 700'	1 D/49
100' cement 700' to 600'	Sol P. M.
Perement Plug 700' 100' cement 700' to 600' 100' cement 482; to 382' 100' cement 100' to o'	0 1
100' cement 100' to o'	
The state of the s	Harmon Control of the second s
	Control of the Contro
Notification must be given to the district work can commence.	oil and gas inspector 24 hours before permitted
WOLK CALL COMMENCE.	
	11.
Work order approved by inspector	NWC 4-30-14 - 1
work order approved by imspector	Date 4 30 17:00
	DOCOLV
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	oil and Gas protection
	Office of Oil and Gas Office of Oil and Gas
	Office of Oil and Gas
	MAN



Well Plugging Work Order



39-5236 J.M. Gub 3.

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Ornice of Oil and Gas WW Dept. of Epytronmental Protection

07-May-98 API # 47- 39-05236 WR-35 State of West Virginia Division of Environmental Protection Section of Oil and Gas Reviewed Well Operator's Report of Well Work Appalachian Land Co Operator Well No.: AL-86 Farm name: LOCATION: Elevation: 1,430.00 Quadrangle: MAMMOTH ELK County: KANAWHA 8500 Feet South of 38 Deg. 22Min. 30 Sec. EI.K District: Latitude: 10300 Feet West of 81 Deg. 15 Min. 0 Longitude Company: REED PARTNERS 1206 KANAWHA BLVD. E., #201 Casing Used in Left Cement CHARLESTON, WV 25301-0000 Fill Up Drilling in Well|Cu. Ft. Tubing JAMES W RED, JR Agent: Size Inspector: CARLOS HIVELY . 05/07/98 5/21/98 Permit Issued: 11 3/4 201 -0-Well work Commenced: Well work Completed: 2/27/98 432 115 SKS 8 5/8 Verbal Plugging Permission granted on:
Rotary ** Cable
Total Depth (feet) 371 5 1/2 2589 CU FT Fresh water depths (ft) 2" 2442 Salt water depths (it) Is coal being mined in area (Y/N)? N Coal Depths (ft): 236-239 Coal Depths (ft): OPEN FLOW DATA ER, KEENER Pay zone depth (ft) ATTACHED HCF/d Oll: Initial open flow Bb1/d LOWER WIER, KEENER Producing formation_ Bb1/d Gas: Initial open flow Final open flow Bbl/d Final open flow 400 MCF/d Time of open flow between initial and final tests Hours psig (surface prassure) after Hours Static rock Pressure 525 Second producing formation Gas: Initial open flow____ Pay zone depth (ft) MCF/d Oil: Initial open flow_ BbI/d Bbl/d Final open flow Final open flow MCF/d Time of open flow between initial and final tests Hours psig (surface pressure) after Hours Static rock Pressure NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PHREMATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL PROCESSING BY THE UPT. BODD Office of Oil and Gas Protection INCLUDING COAL ENCOUNTERED BY THE WELLBORE. : JAMES W REED, JR FOR: REED RARTNERS

WR-35 **Completion Report** AL-86 Kanawha County API# 47-039-05236

PERFORATIONS:

1ST STAGE - LOWER WEIR

5 holes, 2 ft. 2,490' - 2,492' 2,468 - 2,478 11 holes, 10 ft.

2ND STAGE - BIG LIME/KEENER

2,298' - 2,304' 12 holes, 6 ft. 4 holes, 3 ft. 2,281' - 2,284'

STIMULATION

First Stage - Lower Weir

Broke Lower Weir at 2230 PSI. ISIP was 1750 PSI. Began pumping at 20 bbl/ minute and pulled rate back to 16 bbl/minute. Put away 25,000 lbs frac sand and average treating pressure of 2880.

Second Stage - Keener

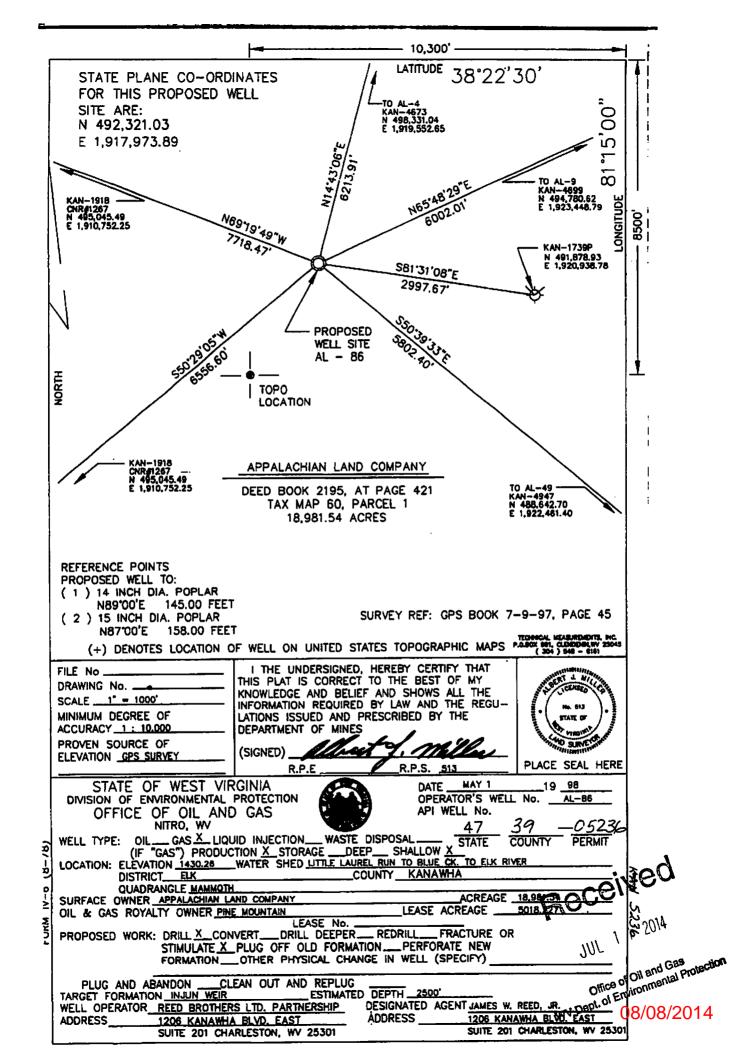
Broke Keener at 2300 PSI. Began pumping at 16 bbls/minute and had to pull back to 12 bbl/minute. Total sand put away was 17,300 lbs at average treating pressure of 3350.

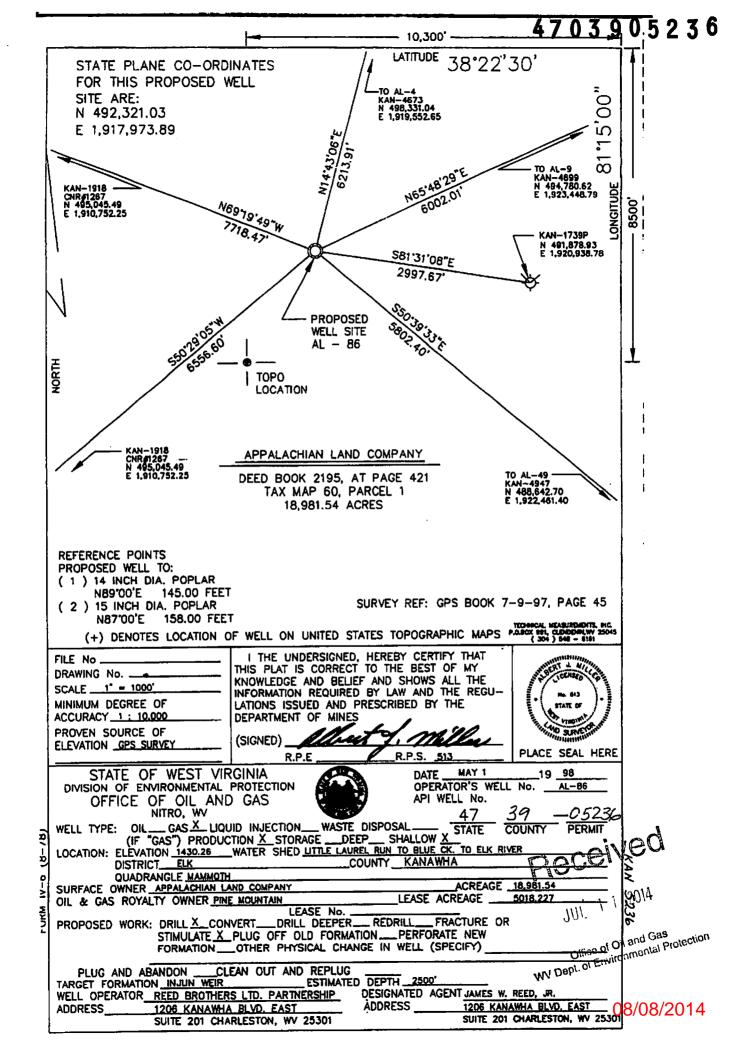
GEOLOGICAL RECORD

Surface	0 - 30 ft
Sand & Shale	30 - 236
Coal	236 - 239
Sand & Shale	239 - 1348
Salt Sand	1348 - 1665
Shale	1665 - 1740
Salt Sand	1740 - 1834
Broken Formation	1834 - 2110
Little Lime	2110 - 2155
Pencil Cave	2155 - 2166
Big Lime	2166 - 2333
Injun	2333 - 2375
Upper Weir	2375 - 2471
Lower Weir	2471 - 2506
Sandy Shale	2506 - 2656

Received Office of Oil and Gas

08/08/2014





WW-4A		1) Date:	
Revised 6-07		Operator's Well Numb	
			AL-86
		3) API Well No.: 47 -	_395236P
	STATE O	F WEST VIRGINIA	
DE	PARTMENT OF ENVIRONMENTA		OIL AND GAS
	NOTICE OF APPLICATION	TO PLUG AND ABANDON A W	ELL.
	200	/	
	er(s) to be served: 5) (a)	Coal Operator	
(a) Name	*n 1	Name	MILE TO THE REAL PROPERTY OF THE PARTY OF TH
Address	Blue Eagle Land Co.	Address	····
A) 1.	700 Virginia	(b) Coal Owner(s) with Declara	
(b) Name Address	Charleston, WV 25302	Name	tion
Address		Address	
		Audress	
(c) Name		Name	
Address		Address	

6) Inspector	m	(c) Coal Losses with Declaration	n
Address	Terry Urban	Name	
11000	P.O. Box 1207	Addross	
Telephone	- Clendenin WV: 2504	5	
Toroprone		***************************************	
Flowever, you Take notice to accompanyin Protection, w the Amblent	ou received these documents is that you have rights a stemot required to take any action at all that under Chapter 22-6 of the West Virginia Code, if g documents for a parmit to plug and abandon a well at the location described on the respect to the well at the location described on the on, and the plat have bean mailed by registered or matances) on or before the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the day of mailing or delivery that the contract of the contract of the day of mailing or delivery that the contract of the contract	he undersigned well operator proposes to file or it with the Chief of the Office of Oil and Gas. Was a strached Application and depicted on the utac certified mail or de ivered by hand to the perso	has filed this Notice and Application and st Virginia Department of Environmental fied Form WW-6. Cooles of this Notice.
	Well Operator	Reed Gas Tac.	-
	Бу:	James W Keel of	*****
	Its:	President	·
	Address	Virginia Street	
	T-1	- Charleston WV: 25	301
	Telephone		
Subscribed and a	worn before me this 34 day	of June, 2014 Notary Put	
My Commission	Expires	C. C	
Oil and Gas Privac	y Notice		4
regulatory duties. business or as nece office will appropr	nd Gas processes your personal informati Your personal information may be disok ded to comply with statutory or regulator lately scourse your personal information. e contact DEP's Chief Privacy Officer at s	sed to other State agencies or third p ry requirements, including Freedom o If you have any questions about our u	artiss is the normal course of of Information Act requests. Our

OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST WINGS WAR CONTROL PROJECTION CONNIE WALKER MOUNT CARBON, WV 25139 My commission expires Nov. 6, 2015 08/08/2014

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Office of Oil and Gas

WV Dept. of Environmental Protection

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API Number 47 -	3.9	-5236P	_
Operator's Well No).	AL-86	

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

CONSTRUCTION AND DECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM

	Reed Gas Fac. OF Code	
	Laurl Run to Blue Creek Querrangio Mammoth	
oonsian _	1430' County Kanawha District Elk	
or lation	of astricipated Pit Weste:	
posed Di	sposal Method For Treated Pri Wasiss:	
	Condensated Injection (UIC Fermit Number	
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	A STATE OF THE PROPERTY OF THE	
repasser W	/ork For Which Pit Will Be Used Swabbing	
	Delling Swadding Plugging	
	Cther (Explain	
	sertify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT leases 1. 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the	
n August in Augu	1, 2095, by the Office of Oil and Gas of the West Virginia Department of B. Wrother than Probability, the best of the permit are enforcement action. Seriely under penalty of law that I have personally examined and am familiar with the information submitted on the seriely under penalty of law that I have personally examined and am familiar with the information submitted on the form and all attackments thereto and that, based on my inquiry of those individuals immediately responsible if the information, I believe that the information is true, accurate, and complete. I am aware that there are significant perhapsion, and information, including the possibility of first or imprisonment.	As is
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on August invitions and or regal and or regal and or regal specialties & Company (Company (Company (Company (1, 2095, by the Office of Oll and Gas of the West Virginia Department of B. Wrother and Probabilist. I discussed of the permit are emforceable by law. Violations of any term or condition of the general persons and that against another can head to enforcement action. seriely under penalty of law that I have personally examined and am familiar with the information submitted on the form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible is the information, I believe that the information is true, accurate, and complete. I am aware that there are significantly probability of first or imprisonment. Official Signature	of the state of th

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STATE OF WEST VIRGINIA

CONNIE WALKER

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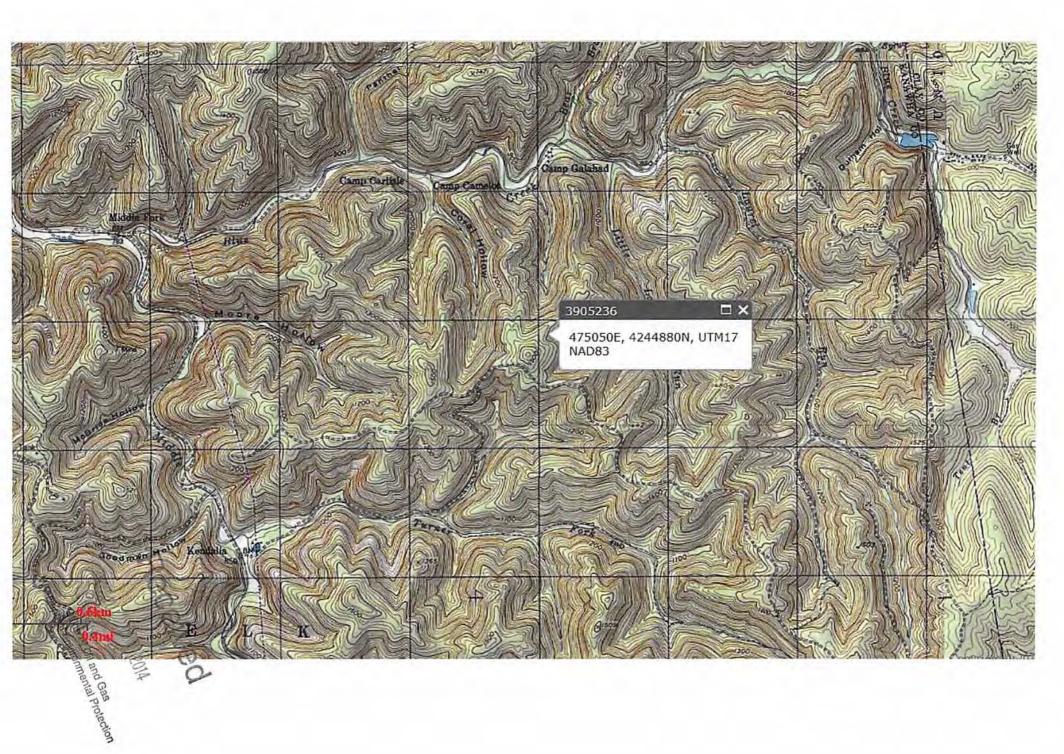
MOUNT CARBON, WV 25139

My commission expires Nov. 6, 2015

08/08/2014

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Attach:	Neclas .
Drawing(s) of read, location, pit and proposed area for land appli-	arion.
Photocopied section of involved 7.5' topographic sheet.	
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	investories con restrata and real and restriction of the second of the s
Plan Approved by: Manager Manager	and the major process of the major of the state of the st
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	091/160
Field Reviewed? () Yes	INO RECEIVED

Office of Oil and Gas
WV Dept. of Envi 08/08/2014





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

API: 47-39- 5236 WELLNO: 171-86	4
FARMNAME: 14 pp glachian hand co	_
RESPONSIBLE PARTYNAME: James W. Poed IL	
COUNTY: Kawawha DISTRICT: 1= 1/4	-
QUADRANGLE: M 3 mm o th	
SURFACE OWNER: Appalach que hand co.	4.
ROYALTYOWNER: Pine Mountian Oil+ Gas	
UTM GPS NORTHING: 4244880	
UTM GPS EASTING: 475,050 GPS ELEVATION: 1430	<u>)</u>
preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements: 1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters. 2. Accuracy to Datum - 3.05 meters 3. Data Collection Method: Survey grade GPS: Post Processed Differential	
Real-Time Differential	
Mapping Grade GPS: Post Processed Differential	leceived
Real-Time Differential	(ecend
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	JUL 1 2014 Office of Oil and Gas Dept of Environmental Prof
Signature Title Date	7