



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

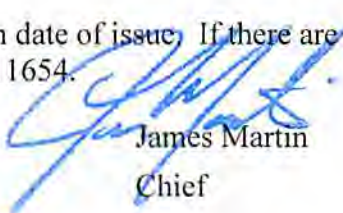
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3905204, 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 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: AL-81
Farm Name: APPALACHIAN LAND CO.
API Well Number: 47-3905204
Permit Type: Plugging
Date Issued: 08/06/2014

Promoting a healthy environment.

08/08/2014

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. 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.

1) Date 6/10/14, 20 14
2) Operator's AL-81
Well No. AL-81
3) API Well No. 47-39-5204P

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 / Liquid injection / Waste disposal
(If "Gas, Production or Underground storage) Deep / Shallow
- 5) Location: Elevation 1331' Watershed Middle Fork of Blue Creek
District Elk County Kanawha Quadrangle Mammoth
- 6) Well Operator Reed Gas, Inc. 7) Designated Agent James W. Reed Jr.
Address Virginia Street Address Virginia Street
Charleston WV. 25301 Charleston WV. 25301
- 8) Oil and Gas Inspector to be notified Name Terry Urban 9) Plugging Contractor Name Duckworth Well Service
Address P.O. Box 1207 Address P.O. Box 6871
Clendenin WV. 25045 Charleston WV. 25363

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

~~Perament Plug @1450'
Cement 1450' to 1350'
Cement 490' to 390'
Cement 100' to surface~~

See Plugging Diagram

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

Work order approved by Inspector *[Signature]*

Date 6-30-14

Received

JUL 1 2014

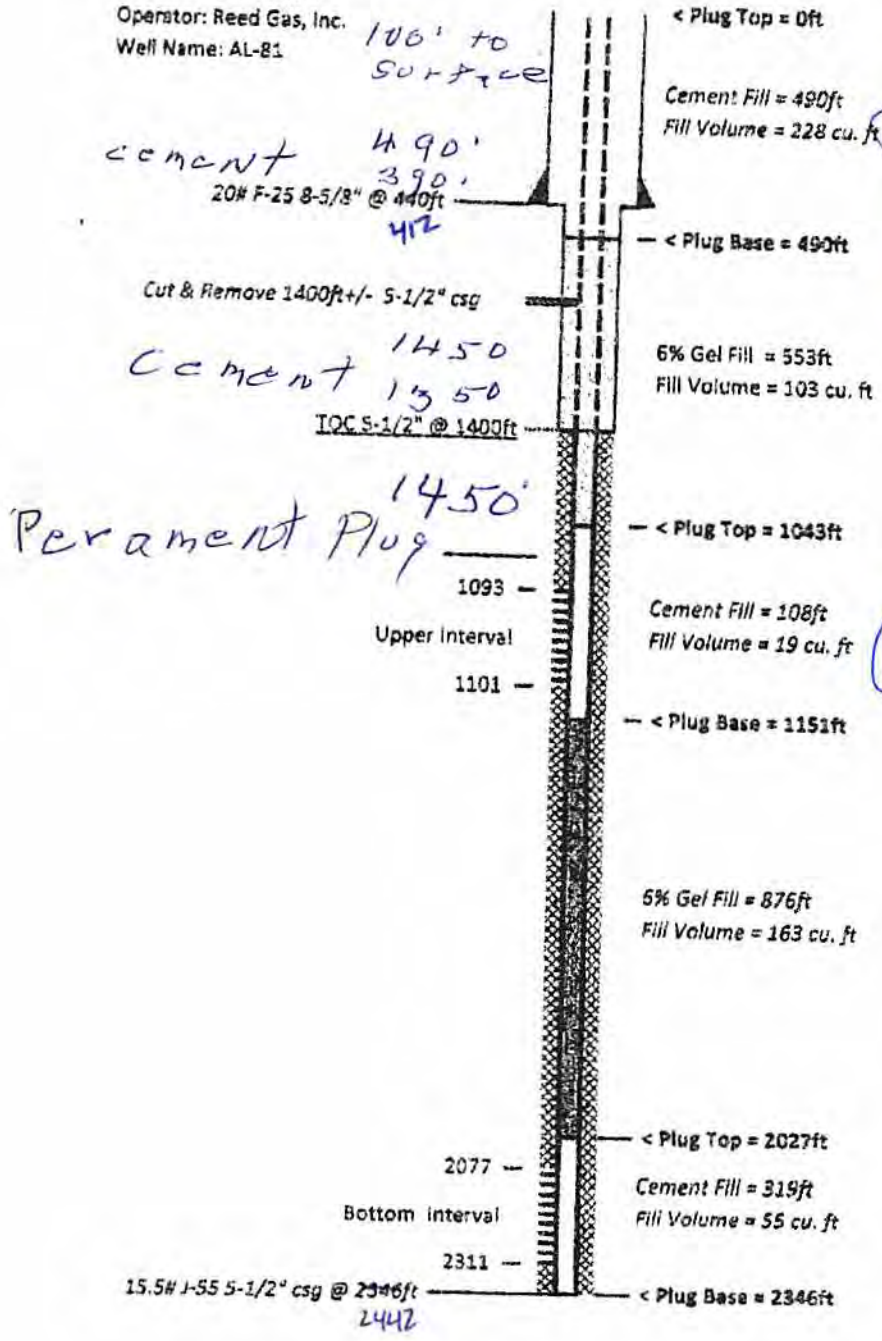
Office of Oil and Gas
WV Dept of Environmental Protection

08/08/2014

39-5204

Well Plugging Work Or

API #: 47-039-05204P
Operator: Reed Gas, Inc.
Well Name: AL-21



Pull tubing
Will also
Set Escalator
plug

W. Miller
6-30-14

Received

JUL 17 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

STATE PLANE CO-ORDINATES
FOR THIS PROPOSED WELL
SITE ARE:
N 490,330.17
E 1,902,947.85

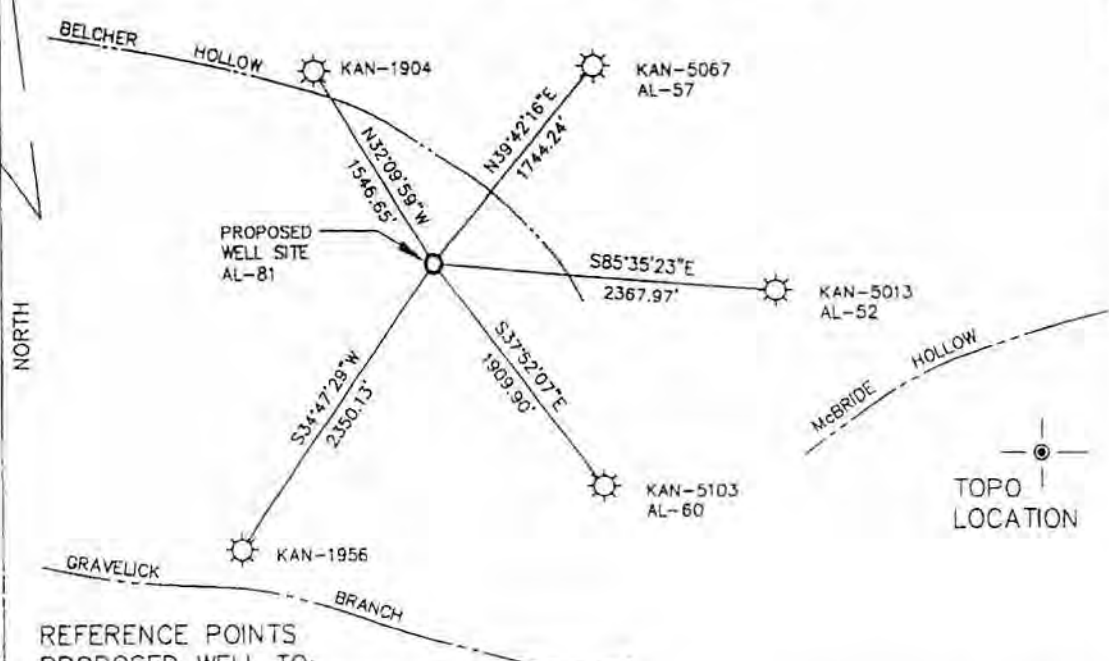
LATITUDE 38°22'30"

1500'

LONGITUDE 81°20'00"

10,450'

APPALACHIAN LAND COMPANY
TAX MAP 60 - PARCEL 1
DEED BOOK 2195, AT PAGE 421
1 - 22 - 88
SKYLES SURVEY TRACT 91



REFERENCE POINTS
PROPOSED WELL TO:

- (1) 18 INCH DIA. RED OAK
N50°00'E 89.00 FEET
- (2) 25 INCH DIA. RED OAK
N75°00'E 107.00 FEET

TECHNICAL MEASUREMENTS, INC.
LAND SURVEYORS
P.O. BOX 991
CLENDENIN, WEST VIRGINIA 25045
(304) 548-6161

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE No _____
DRAWING No. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY 1 : 10,000
PROVEN SOURCE OF
ELEVATION GPS SURVEY

I THE UNDERSIGNED, HEREBY CERTIFY THAT
THIS PLAT IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGU-
LATIONS ISSUED AND PRESCRIBED BY THE
DEPARTMENT OF MINES

(SIGNED) Albert J. Miller
R.P.E. R.P.S. 513



PLACE SEAL HERE

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
NITRO, WV



DATE FEBRUARY 3 19 98
OPERATOR'S WELL No. AL-81
API WELL No. 47

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1331.03 WATER SHED BELCHER HOLLOW TO MORRIS FORK TO BLUE CK TO ELK RIVER
DISTRICT ELK COUNTY KANAWHA
QUADRANGLE MAMMOTH

SURFACE OWNER APPALACHIAN LAND COMPANY ACREAGE 18,977.62
OIL & GAS ROYALTY OWNER PINE MOUNTAIN LEASE ACREAGE 18,977.62

LEASE No. _____
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW
FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION INJUN WEIR ESTIMATED DEPTH 2500'
WELL OPERATOR REED BROTHERS LTD. PARTNERSHIP DESIGNATED AGENT JAMES W. REED, JR.
ADDRESS 1206 KANAWHA BLVD. EAST ADDRESS 1206 KANAWHA BLVD. EAST
SUITE 201 CHARLESTON, WV 25301 SUITE 201 CHARLESTON, WV 25301

FORM IV-5 (8-78)

08/08/2014

RECEIVED
KAN 5204

RECEIVED
 Office of Oil and Gas
 U.S. Section
 MAR 15 1999

State of West Virginia
 Division of Environmental Protection
 Section of Oil and Gas

API # 47- 39-05204

Reviewed: AS

Well Operator's Report of Well Work

Farm name: Appalachian Land Co. Operator Well No.: AL-81

LOCATION: Elevation: 1,331.03 Quadrangle: MAMMOTH

District: ELK County: KANAWHA
 Latitude: 10450 Feet South of 38 Deg. 22Min. 30 Sec.
 Longitude: 1500 Feet West of 81 Deg. 20 Min. 0 Sec.

Company: REED GAS, INC.
1206 KANAWHA BLVD. E., STE. 301
CHARLESTON, WV 25301-0000

Agent: JAMES W REED, JR

Inspector: CARLOS HIVELY
 Permit Issued: 03/09/98
 Well work Commenced: 4/6/98
 Well work Completed: 4/14/98
 Verbal Plugging
 Permission granted on: _____
 Rotary X Cable _____ Rig _____
 Total Depth (feet) 2490
 Fresh water depths (ft.) 108'
 Salt water depths (ft) 1345

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13	20'	-0-	
8 5/8		412	200 SKS
5 1/2		2442	.349 CU. FT.
2		2251	

Is coal being mined in area (Y/N)? N
 Coal Depths (ft): 242-246

OPEN FLOW DATA

Producing formation: LOWER WEIR, LIME Pay zone depth (ft) ATTACHED
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 400 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 275 psig (surface pressure) after _____ Hours

Second producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: REED GAS, INC. JAMES W REED, JR

By: James W. Reed Jr.
 Date: 3-11-99

Received

WR-35
Completion Report
AL-81
Kanawha County
API# 47-039-05204



FIRST STAGE PERFORATIONS: LOWER WEIR

2302 - 2311, 20 holes

SECOND STAGE PERFORATIONS: UPPER WEIR

2210' - 2272', 4 holes

2278' - 2283', 16holes

THIRD STAGE PERFORATIONS: BIG LIME

2077' to 2083', 16 holes

FOURTH STAGE PERFORATIONS: ROSEDALE

1093' to 1101, 16 holes

STIMULATION

Perforated Lower Weir. Pressured up on it to 3318 psi and observed breakdown. Pumped away 20,000 lbs of sand with an average treating pressure (top hole) of 1210 psi and a average treating rate of 16 bbls per minute. Dropped frac ball in 500 gallons of 18% Hcl and followed by column of water.

Perforated upper portion of lower Weir and began pumping. No noticeable breakdown was observed and it was assumed that formation had broken under the hydrostatic weight of the hole full of water. Pumped away an additional 20,000 lbs of sand with an average rate at 16 bbls per minute with an average treating pressure of 973 psi.

Pumped down a second ball in acid as before and shot Lime perms. Again no distinct breakdown could be seen, preassembly because of hydrostatic pressure. Pumped into Lime 16 bbls per minute with an average treating pressure of 1193 psi.

Third frac ball was dropped in acid and it was decided to pump on the seated ball before perforating in order to test pipe. No pressure buildup occurred. Well was shut in- in order to evaluate overnight before flowing back or continuing with fracture treatment.

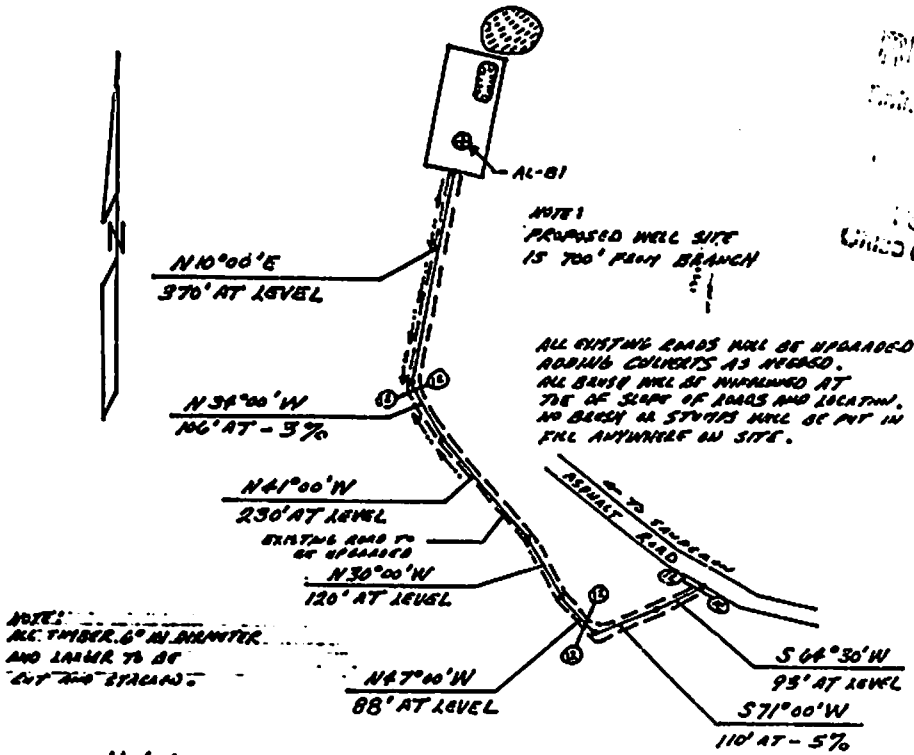
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Office of Oil and Gas
West Virginia Dept. of Environmental Protection

08/08/2014

REED BROTHERS LIMITED PARTNERSHIP WELL AL-81 MAMMOTH, QUAD.



NOTE: ALL TYPICAL 6" DIAMETER AND LARGER TO BE CUT AND STRIPED.

Note: AFTER ROAD IS CONSTRUCTED ADDITIONAL DRAINS WILL BE ADDED AS NEEDED.

D.H. 3-2-98



Received

July 1, 2014
Office of Oil and Gas
Department of Environmental Protection
08/08/2014

WW-4A
Revised 8-07

1) Date: 6/10/14
2) Operator's Well Number: AL 81
3) API Well No.: 47 - 39 5204P

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:	5) (a) Coal Operator
(a) Name <u>Appalachian Land Co</u>	Name <u>Blue Eagle Land Co</u>
Address <u>700 Virginia</u>	Address <u>Charleston, WV 25302</u>
(b) Name <u>Charleston, WV 25302</u>	(b) Coal Owner(s) with Declaration
Address _____	Name _____
_____	Address _____
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Terry Urban</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 1207</u>	Name _____
Telephone <u>Clendenin WV, 25045</u>	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 log 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 reverse side. However, you are not required to take any action at all.

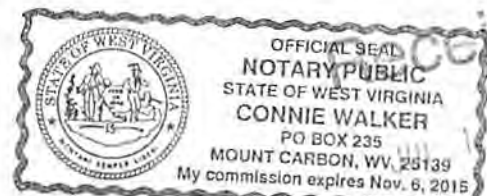
Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental 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 Reed Gas, Inc.
 By: James W. Reed Jr.
 Its: President
 Address Virginia Street
Charleston WV, 25301
 Telephone 304-345-3817

Subscribed and sworn before me this 24 day of June, 2014
Connie Walker Notary Public
 My Commission Expires Nov 6, 2015

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 depriva@dep.state.wv.gov.



Office of Oil and Gas
 WV Dept. of Environmental Protection
 08/08/2014

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U.S. Postal Service
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 0.71	07/01
Certified Fee	\$3.30	
Return Receipt Fee (Endorsement Required)	\$2.70	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.71	

Sent To: Blue Eagle Hand Co.
 Street, Apt. No.,
 or PO Box No.: 700 Virginia Ln
 City, State, ZIP+4: Charleston WV 25302

PS Form 3800, August 2006 See Reverse for Instructions



Received

JUL 11 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

08/08/2014

WW-9
Rev. 5/08

Page 39 of 5204P
API Number 47- AL-81
Operator's Well No. AL-81

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 Reed Gas Inc. OP Code _____

Watershed Middle Fork of Blue Creek Quadrangle Mammoth

Elevation 1331' County Kanawha District Elk

Description of anticipated Pit Waste: _____

Will a synthetic liner be used in the pit? _____

NO pit

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 _____)

Proposed Work For Which Pit Will Be Used:

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

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 James W. Reed, Jr.

Company Official (Typed Name) James W. Reed

Company Official Title President

Subscribed and sworn before me this 24 day of June, 2014

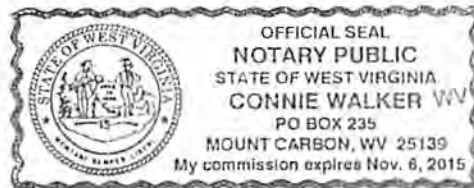
Connie Walker Notary Public

My commission expires Nov 6, 2015

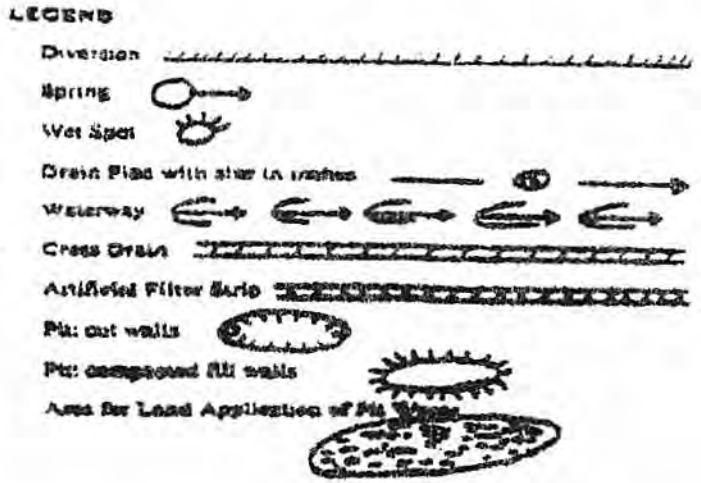
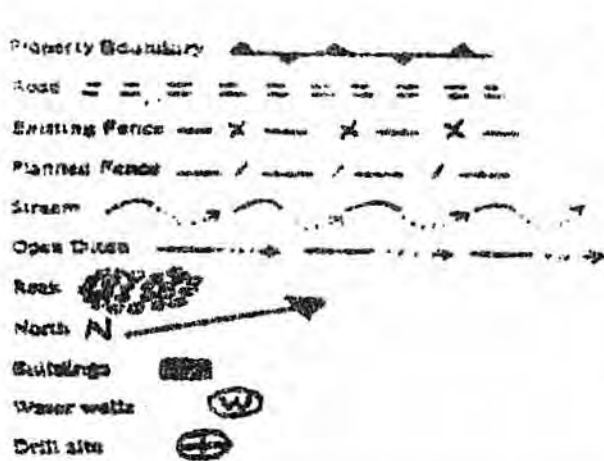
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Office of Oil and Gas
Dept. of Environmental Protection



08/08/2014



Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH _____

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

Mulch 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]
Comments: _____

This: Inspected Oil & Gas

Date: 6-30-14

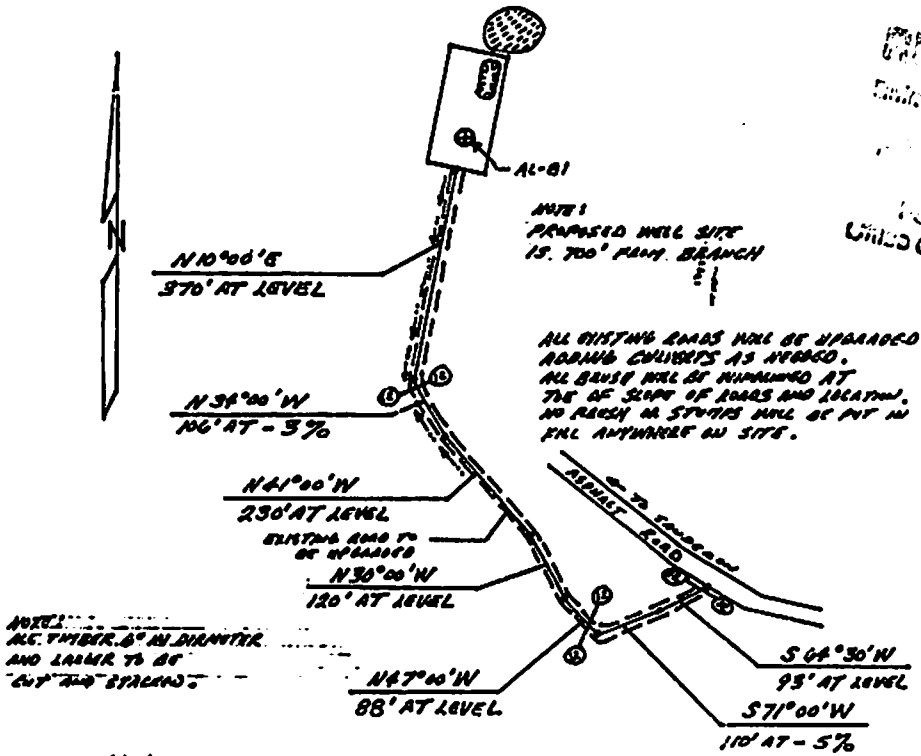
Field Reviewed? Yes No

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JUL 1 2014
Office of Oil and Gas
WV Dept. of Environmental Protection
08/08/2014

PHOTOCOPY SECTION OF
USGS TOPOGRAPHIC MAP
QUADRANGLE MAMMOTH, WV

LEGEND
WELL SITE
ACCESS ROAD

REED BROTHERS LIMITED PARTNERSHIP WELL AL-81 MAMMOTH, QUAD.



RECEIVED
WV Dept. of Environmental Protection
Permitting
Office of Oil & Gas

Note:
AFTER ROAD IS CONSTRUCTED
ADDITIONAL DRAINS WILL BE
ADDED AS NEEDED.

C.H. 3-2-98

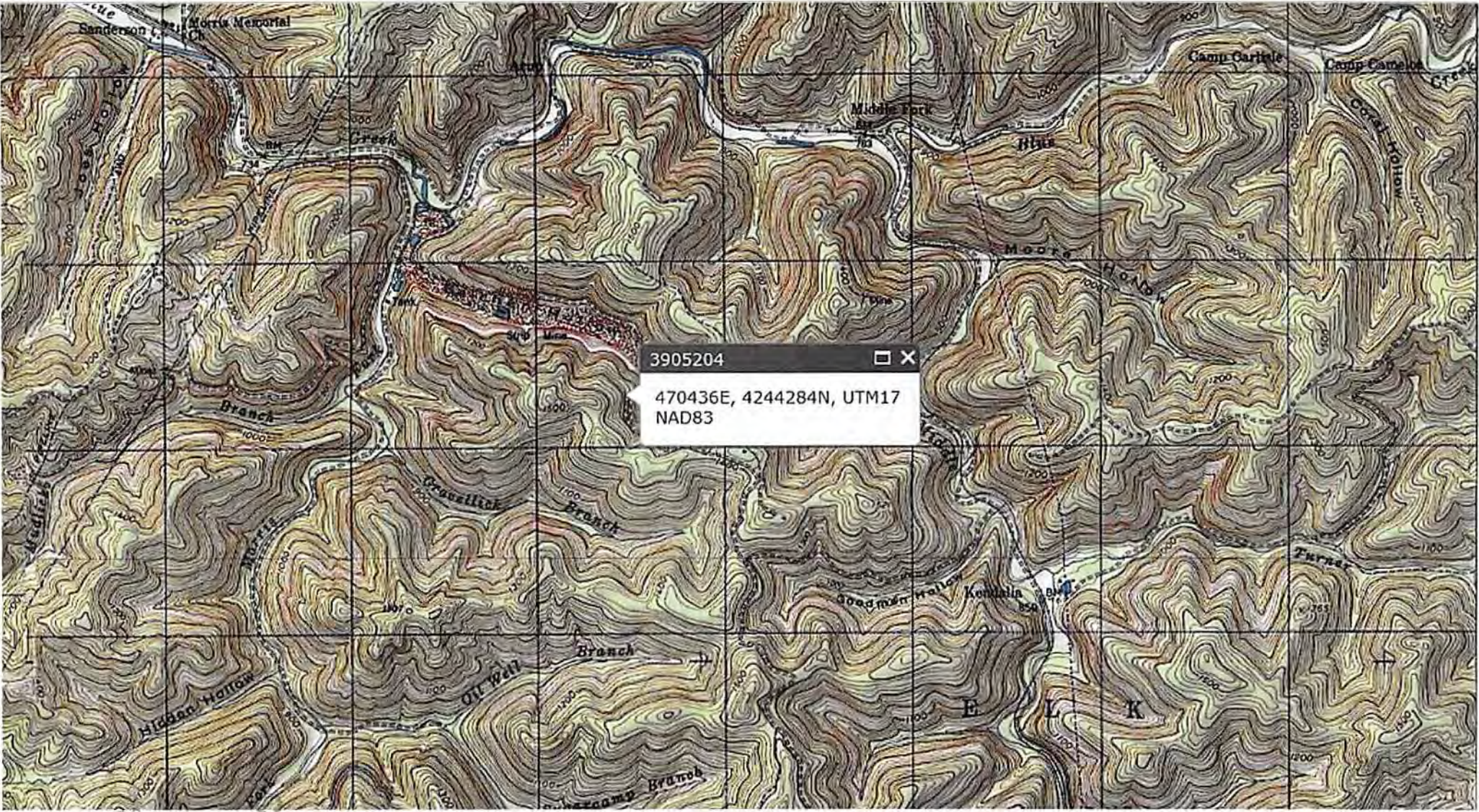


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Office of Oil and Gas
WV Dept. of Environmental Protection

08/08/2014



Department of Oil and Gas
Environmental Protection
11 2014
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West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-39-5204 WELL NO.: A1-81
FARM NAME: Appalachian Land Co.
RESPONSIBLE PARTY NAME: James W. Reed Jr.
COUNTY: Kanawha DISTRICT: E1K
QUADRANGLE: Mannoth
SURFACE OWNER: Appalachian Land Co.
ROYALTY OWNER: Pine Mountain Oil & Gas
UTM GPS NORTHING: 4244284
UTM GPS EASTING: 4704361 GPS ELEVATION: 1331

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 : Post Processed Differential

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.

Steve Blankenship
Signature

Contractor
Title

6-14-14
Date

JUL 11 2014