



 west virginia department of environmental protection

Office of Oil and Gas
 601 57th Street, S.E.
 Charleston, WV 25304
 (304) 926-0450
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Thursday, April 11, 2019

WELL WORK PLUGGING PERMIT
 Coal Bed Methane Well Plugging

ALLIANCE PETROLEUM CORPORATION
 101 MCQUISTON DR.

JACKSON CENTER, PA 16133

Re: Permit approval for Lon B. Rogers / WVC-504626
 47-047-01461-00-00

This well work permit 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 any additional specific 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. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of 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.

Per 35 CSR 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- 0450.

James A. Martin
 Chief

Operator's Well Number: 504626
 Farm Name: PATTY LOUISE RATLIFF
 U.S. WELL NUMBER: 47-047-01461-00-00
 Coal Bed Methane Well Plugging
 Date Issued: 4/11/2019

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.

47-047-01461 P

WW-4B
Rev. 2/01

1) Date January 21, 2019 **04/12/2019**
2) Operator's
Well No. 504626 Lon B. Rogers
3) API Well No. 47-047-01461

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 CBM / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow ___

5) Location: Elevation 2135 Watershed Coal Bank Fork of Meathouse Fork
District Sandy River County McDowell Quadrangle Bradshaw

6) Well Operator Diversified Southern Production 7) Designated Agent Conley Smith
Address 100 Diversified Way Address 100 Diversified Way, P.O. Box 3878
Pikeville, KY. Pikeville, KY.

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gary Kennedy Name R and J Well Service
Address 66 Old Church Lane Pipestem, Wv. 25979 Address 1087 Raccoon Rd.
304-382-8402 Hueysville, KY. 41640

10) Work Order: The work order for the manner of plugging this well is as follows:
See attachment for details and procedures.

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

Work order approved by inspector  Date 2/3/19

PLUGGING PROGNOSIS

504626
West Virginia, McDowell County
API # 47-047-01461

Casing Schedule

12 3/4" csg @ 25'. Cemented to surface
9 5/8" csg @ 308' Cemented to surface w/ 125.1 Cu Ft
4 1/2" csg @ 2033' Cemented w/ 225.75 Cu Ft. (Estimated TOC at 1050')

2" tbg @ 1877' (5/8" rods)

Completion

Lower Coal Completion: 1567' to 1877' (19H)
Upper Coal Completion: 1198' to 1321' (10H)

Fresh Water: None Reported

Saltwater: None Reported

Coal: 70' - 72', 134' - 136', 226' - 228', 284' - 288', 508' - 510', 915' - 918', 980' - 982', 990' - 992',
1200' - 1204', 1310' - 1313', 1575' - 1578', 1650' - 1653', 1735' - 1738', 1790' - 1793', 1820' - 1823',
1870' - 1873'

1. Notify inspector, Gary Kennedy, @ 304-382-8402, 48 hrs, prior to commencing operations.
2. Record tbg/csg pressure
3. TOOH w/ 5/8" rods
4. TOOH w/ 2 3/8" tbg. Tally and inspect tbg.
 - a. If unable to pull tbg. Free point tbg and report free point depth. Perforate and pull tbg
5. TIH w/ tbg to TD.
 - a. Set expanding cement plug from 2033' to 1150'
6. TOOH w/ tbg.
7. Free point 4 1/2" csg. (Estimated @ 1050'). TOOH w/ 4 1/2" csg. SET 100' CLASS A CEMENT PLUG ABOVE CUT.
 - a. Perforate all coal shows below cut. 50' below each seam and at each seam or every 50' for multiply seams.
 - b. Do not omit any plugs.
8. TIH w/ tbg to 1150'. Set expanding cement plug from 1150' to surface
9. Erect monument with API#, date plugged, & company name.
10. Reclaim location and road to WV-DEP specifications.

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Environmental Protection

47-047-01461C9
04/12/2019

WR-35

API # 47- 047-01461

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

Well Operator's Report of Well Work

Farm Name: Sparks, Velma

Operator Well No.: WVC-4626
(WVC-504626)

LOCATION: Elevation: 2135.44'

Quadrangle: Iager

District: Sandy River

County: McDowell

Latitude: 12,089.19' Feet South of
Longitude: 3724.32' Feet West of

Minutes Seconds
22 30
50 0

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Permitting
DEC 27 2001
WV Department of
Environmental Protection

Company: Equitable Production Company
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Agent: Stephen G. Perdue

Inspector: Ofie Helmick
Permit Issued: 8/23/00

Well work commenced: 09/12/01
Well work completed: 10/16/01

Verbal Plugging

Permission granted on: _____

Rotary Rig Cable Rig _____

Total Depth 2080' feet

Fresh water depths (ft) _____

Salt water depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
12 3/4"	25'	25'	grouted
9 5/8"	308'	308'	125.1 ft ³
4 1/2"	2033'	2033'	225.75 ft ³

Handwritten initials

Is coal being mined in area?

Coal Depths (ft): 70'-72'; 134'-136'; 226'-228'; 284'-288'; 508'-510'; 915'-918'; 980'-982';
990'-992'; 1200'-1204'; 1310'-1313'; 1575'-1578'; 1650'-1653'; 1735'-1738';
1790'-1793'; 1820'-1823'; 1870'-1873'

OPEN FLOW DATA

Producing formation Penn Coal Seams Pay Zone Depth (ft): _____ See Attach for details

Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow: 34 (in line) MCF/d Final open flow: _____
Time of open flow between initial and final tests _____ Hours
Static rock pressure 170 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: _____
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours

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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.

Kathy L. Conway
For: Equitable Production Company

By: *W. A. Davis*
Date: 12/18/01

Vertical handwritten text

Handwritten initials

EQUITABLE PRODUCTION COMPANY
 WR-35 COMPLETION REPORT - Attachment
 Well Treatment Summary

Well: WVC-504626

API# 47-047-01461

Date	10/02/01	10/02/01				
Type Frac	65-70 Q	65-70 Q				
Acid, N ₂ , Foam, Water	Foam	Foam				
Zone Treated	Lower Coal Seams	Upper Coal Seams				
# Perfs	19	10				
From - To:	1567' - 1877'	1198' - 1321'				
BD Pressure @ psi	3090	3910				
ATP psi	3348	3588				
Avg. Rate, B=B/M, S= SCF/M	25 B (foam)	19.5 B (foam)				
Max. Treat Press psi	3910	3850				
ISIP psi	2159	1350				
Frac Gradient	1.69	1.5				
10 min S-I Pressure	1240 (5 min)	970 (5 min)				
Material Volume						
Sand-sks	97	99				
Water-bbl	419	328				
SCF N ₂	749,819	495,238				
Acid-gal	904 gal 7.7%	600 gal 7.7%				
NOTES:						

TOP	BOTTOM	FORMATION	REMARKS
0	25'	Over Burdon	
25'	70'	Sandy Shale	
70'	72'	Coal	
72'	100	Sand stone	
100'	134'	Sandy Shale	
134'	136'	Coal	
136'	226'	Sand Stone	
226'	228'	Coal	
228'	260'	Sandy Shale	
260'	284'	Sand Stone	
284'	288'	Coal	
288'	360'	Sandy Shale	
360'	363'	Open Mine	
363'	400'	Sandy Shale	
400'	508'	Sand Stone	
508'	510'	Coal	
510'	915'	Sandy Shale	
915'	918'	Coal	
918'	980'	Sandy Shale	
980'	982'	Coal	
982'	990'	Sandy Shale	
990'	992'	Coal	
1197.5'	1201.5'	Beckley	
1317.75'	1322'	Fire Creek	
1566.5'	1568.5'	Poca 6	
1646.75'	1648.25'	Poca 4	
1678.75'	1679.25'	Poca 4L	
1734.75'	1736.5'	Poca 3	
1785.5'	1789.25'	Poca 2	
1829.25'	1831'	Poca 1	

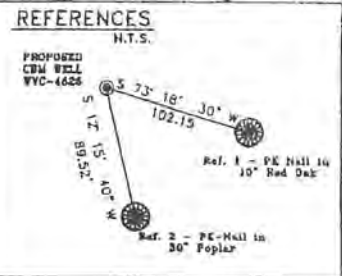
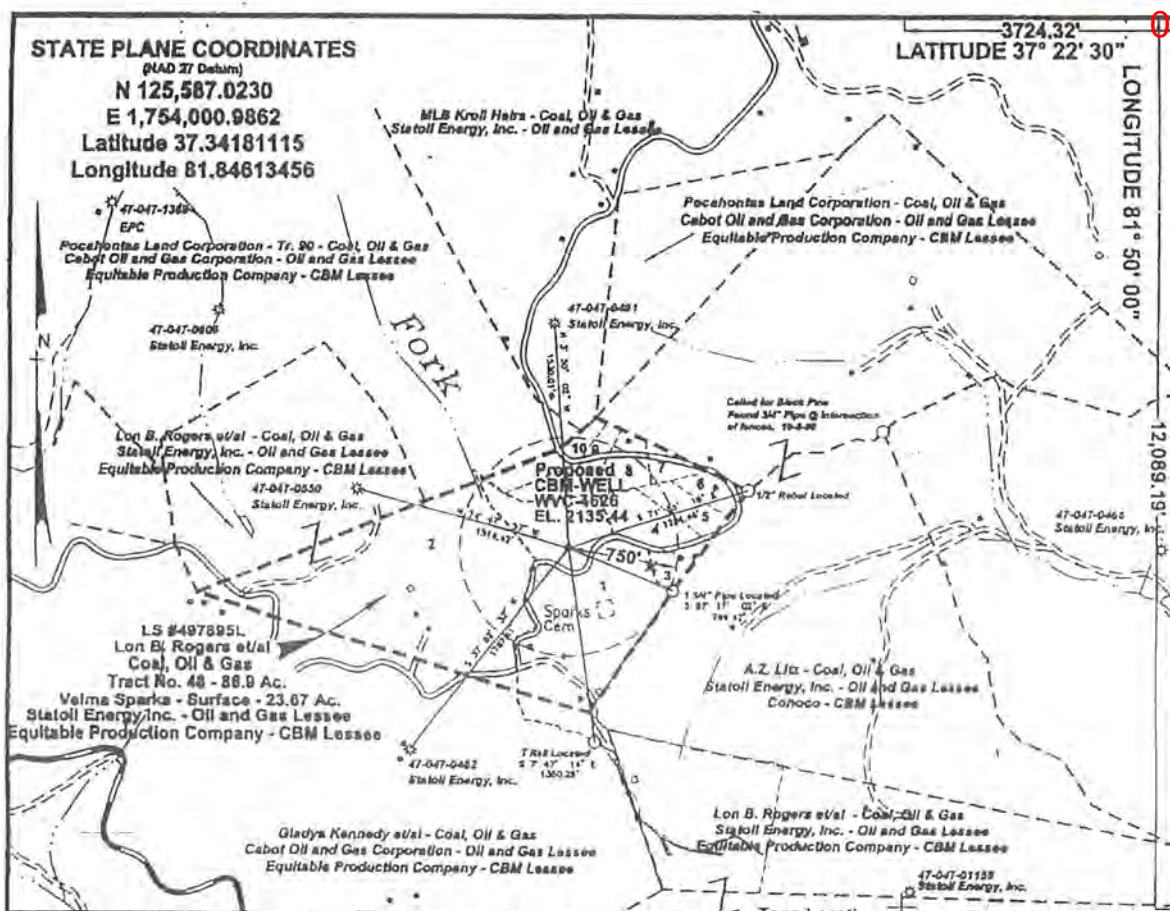
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47-047-01461C P

04/12/2019



Lon B. Rogers et al - Coal, Oil and Gas
 Lon B. Rogers Tract No. 48 - 86.9 Ac. - Lease # 497895L
 Velma Sparks - Surface - 23.67 Ac.
 Statoll Energy Inc. - Oil and Gas Lessee
 Equitable Production Company - CBM Lessee

- Adjacent Surface Tracts
1. Velma Sparks
 2. Errell Grizzel
 3. Oscar Foley
 4. Oscar Foley
 5. Eleania Blavins
 6. Gwendolyn Hecovar
 7. Wilma Deskins
 8. Joyce and Barbara Hawks
 9. Bearl Asbury
 10. Joe Kennedy
- Data taken from McDowell County Records

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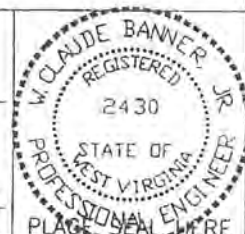
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WV Department of Environmental Protection

FILE No. 4-5-00-35P
 DRAWING NAME WVC-4626\WVC-4626
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 : 2500
 PROVEN SOURCE OF ELEVATION Global Positioning System (GPS)

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) [Signature]
 R.P.E. 2430 R.P.S.



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

DATE APRIL 14 2000
 OPERATOR'S WELL No. WVC-4626
 API WELL No. _____
 STATE 47 COUNTY 047 PERMIT 01461C

WELL TYPE: OIL GAS CBM LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW

LOCATION: ELEVATION 2135.44 WATER SHED COALBANK FORK OF MEATHOUSE FORK
 DISTRICT SANDY RIVER COUNTY MCDOWELL
 QUADRANGLE WV

SURFACE OWNER VELMA SPARKS ACREAGE ± 23.67
 CBM ROYALTY OWNER LON B. ROGERS ET/AL LEASE ACREAGE 3836.13
 LEASE No. 497895L

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 PENNSYLVANIAN COALS
 WELL OPERATOR EQUITABLE PRODUCTION COMPANY
 ADDRESS 1989 EAST STONE DRIVE
KINGSPORT, TN 37660

ESTIMATED DEPTH _____
 DESIGNATED AGENT LARRY AYLESTOCK
 ADDRESS P.O. BOX 1550

MCDOWELL 1461C

[Handwritten initials]

47-047-01461

04/12/2019

WW-4A
Revised 6-07

1) Date: 01/21/2019
2) Operator's Well Number
504626 Lon B. Rogers
3) API Well No.: 47 - 047 - 01461

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 Patty Louise Ratliff, Address 96 Rustic Ridge, Paynesville, WV. 24873, (b) Name, Address, (c) Name, Address
5) (a) Coal Operator Name LBR Holdings LLC, Address P.O. Box 22427, Lexington, KY. 40522, (b) Coal Owner(s) with Declaration Name, Address, (c) Coal Lessee with Declaration Name, Address
6) Inspector Gary Kennedy, Address 66 Old Church Lane, Pipestem, WV. 25979, Telephone 304-382-8402

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 Diversified Southern Production, LLC
By: Conley Smith (signature)
Its: Regional Land Manager
Address P.O. Box 3878, Pikeville, KY. 41501
Telephone (606) 437-5245

Subscribed and sworn before me this 22nd day of JANUARY 2019
(signature) Notary Public
My Commission Expires 8-18-2021

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 depprivacyofficer@wv.gov.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Diversified Southern Production OP Code _____

Watershed (HUC 10) Coal bank fork of Meathouse fork Quadrangle Bradshaw

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

Will a pit be used? Yes No *dk*

If so, please describe anticipated pit waste: Formation Fluids

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

Proposed Disposal Method For Treated Pit Wastes:

- _____ Land Application (if selected provide a completed form WW-9-GPP)
- _____ Underground Injection (UIC Permit Number 2D04701511002)
- _____ Reuse (at API Number _____)
- _____ Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Will closed loop system be used? If so, describe: _____

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

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

Additives to be used in drilling medium? _____

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

JAN 25 2019

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

-Landfill or offsite name/permit number? _____

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

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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 *Conley Smith*

Company Official (Typed Name) Conley Smith

Company Official Title Regional Land Manager

Subscribed and sworn before me this 22nd day of JANUARY, 20 19

[Signature] Notary Public

My commission expires 8-18-2021

Proposed Revegetation Treatment: Acres Disturbed 1+/- Prevegetation pH _____

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or equivalent

Fertilizer amount _____ lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike	5	Alsike Clover	5
Annual Rye	15		

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments: _____

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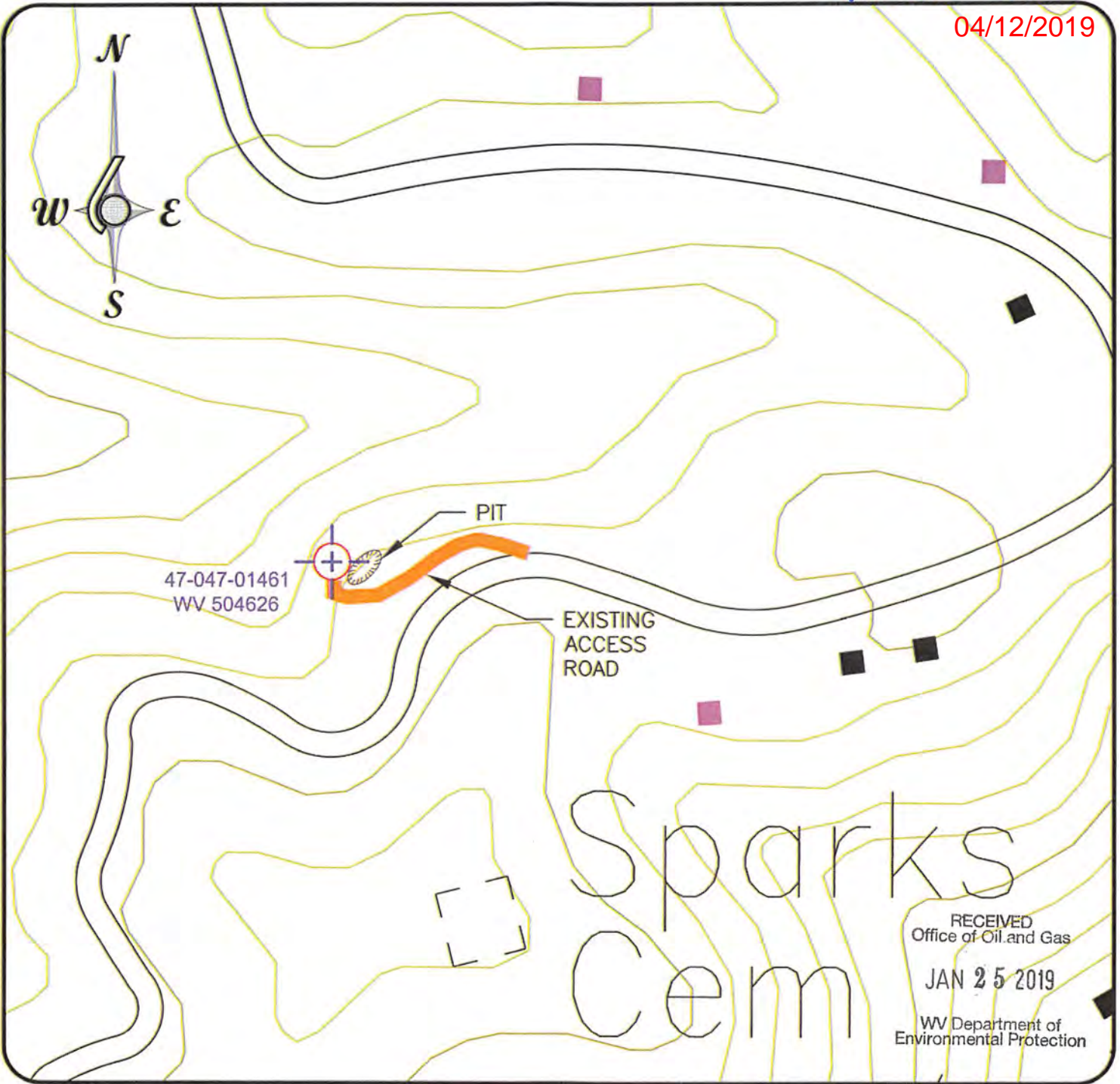
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Title: Inspector Date: 2/4/19

Field Reviewed? () Yes () No

47-047-01461f

04/12/2019



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JAN 25 2019
WV Department of
Environmental Protection

API: 47-047-01461

Well: ROGERS, LON # 504626

Well # 504626

Topo Quad:	Bradshaw 7.5'
County:	McDowell, WV
District:	Sandy River
Scale:	1"=200'
Date:	January 11, 2019
Work Order:	GSE1070



NAD 27 S Zone	NAD 83 S Zone
N 125,623.13	N 125,666.32
E 1,753,997.56	E 1,722,550.80
UTM N83 Zone 17	LAT: 37.342022
N 4,133,150.680m	LONG: -81.845986
E 425,065.220m	ELEV: 2124.29'

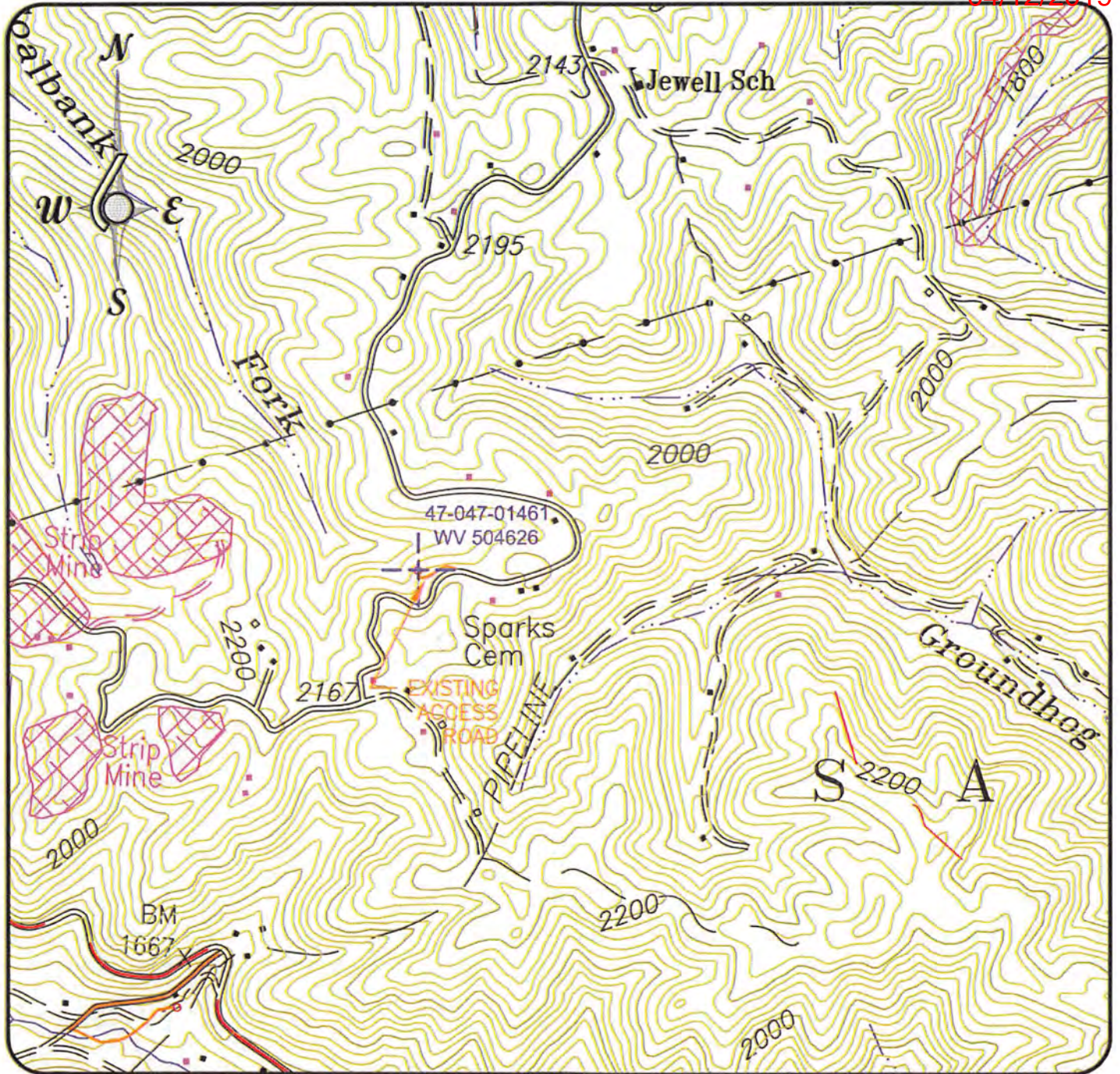


CONSULTING ENGINEERS
312 TENTH STREET PAINTSVILLE, KY (606) 789-5961
259 NORTH ARNOLD AVENUE PRESTONSBURG, KY (606) 886-7884

PIT MAP



DIVERSIFIED GAS & OIL CORPORATION



API: 47-047-01461

Well: ROGERS, LON # 504626

Well # 504626

Topo Quad:	Bradshaw 7.5'
County:	McDowell, WV
District:	Sandy River
Scale:	1"=1000'
Date:	January 11, 2019
Work Order:	GSE1070



NAD 27 S Zone	NAD 83 S Zone
N 125,623.13	N 125,666.32
E 1,753,997.56	E 1,722,550.80
UTM N83 Zone 17	LAT: 37.342022
N 4,133,150.680m	LONG: -81.845986
E 425,065.220m	ELEV: 2124.29'



312 TENTH STREET
PAINTSVILLE, KY (606) 789-5961

259 NORTH ARNOLD AVENUE
PRESTONSBURG, KY (606) 896-7884

TOPO



DIVERSIFIED GAS & OIL CORPORATION

WW-7
8-30-06



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

API: 47-047-01461 WELL NO.: 504626
FARM NAME: WVC-504626 Lon B. Rogers
RESPONSIBLE PARTY NAME: Alliance Petroleum Co. LLC
COUNTY: McDowell DISTRICT: Sandy River
QUADRANGLE: Bradshaw
SURFACE OWNER: Patty Louise Ratliff
ROYALTY OWNER: Lon B. Rogers, et.al.
UTM GPS NORTHING: 4,133,150.680m (2124')
UTM GPS EASTING: 425,065.220m GPS ELEVATION: 647.484m

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters. Altitude: height above mean sea level (MSL) - meters.
- Accuracy to Datum - 3.05 meters
- 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.

Dewey L. Bocook, Jr.

LLS # 1054

1/14/2019

Signature

Title

Date