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**west virginia** department of environmental protection

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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

May 30, 2014

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-3304289, issued to PDC MOUNTAINEER LLC, 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: LOWNDES #9  
Farm Name: DAVIS, LAURA GOFF ., ET AL  
**API Well Number: 47-3304289**  
**Permit Type: Plugging**  
Date Issued: 05/30/2014

**Promoting a healthy environment.**

## 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.

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### CONDITIONS

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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.

4703304289P

WW-4B  
Rev. 2/01

1) Date April 14, \_\_\_\_\_, 2014  
2) Operator's  
Well No. Lowndes #9  
3) API Well No. 47-033 - 4209

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 XX / Liquid injection \_\_\_\_\_ / Waste disposal \_\_\_\_\_ /  
(If "Gas, Production XX or Underground storage \_\_\_\_\_) Deep \_\_\_\_\_ / Shallow \_\_\_\_\_

5) Location: Elevation 327 m (1,073 ft) Watershed Davisson Run  
District Clark County Harrison 33 Quadrangle Wolf Summit 7.5' 692

6) Well Operator PDC Mountaineer, LLC 7) Designated Agent Steven P. Johnson  
Address 120 Genesis Blvd. Address 120 Genesis Blvd.  
Bridgeport, WV 26201 Bridgeport, WV 26201

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Sam Ward Name TBD  
Address P.O. Box 2327 Address \_\_\_\_\_  
Buckhannon, WV 26301

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

- Check TD. Set with C1A cement plug to 2132'. Tag BHP.
- Remove 5 3/8" at free point. Set plug at cut with C1A cement.
- Set plug with C1A cement from 1868' to 1709'.
- Remove 6 5/8" at free point. Set plug with C1A cement at cut and 1431' and 1331'.
- Set 100' cement plug with C1A cement at elevation.
- Remove 10" at free point. Perforate at 228' and 350' if cannot be removed.
- Set plug with C1A cement from 400' to surface. Install monument with a minimum of 6" diameter with a minimum of 10' below surface in well bore, also with a minimum 30" above surface and filled with concrete not cement.

All plugs must be 100' minimum length SDW

Received

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

MAY - 7 2014

Work order approved by inspector

S. P. Oldham III

Date

4/25/2014 Oil and Gas  
WV Dept. of Environmental Protection

GEL SPACER MUST BE PLACED IN WELL BETWEEN CEMENT PLUGS.

GEL MUST BE FRESH WATER WITH A MINIMUM OF 6% (6%) BENTONITE BY WEIGHT.

LOWNDES WELLNO. 9

Drilling Commenced: May 24, 1911  
 Drilling Completed: July 13, 1911

May	24	Red Rock	10		6	Red Rock	50	1130	
		Conductor	12			Slate	10	1140	
		Lime	4	14		Line	14	1154	
		Slate	20	34	7	Red Rock	6	1160	
		Lime	16	50		Line	22	1182	
		Slate	23	73		Sand	28	1210	
		Lime	20	93		Line	20	1230	
	25	Red Rock	12	105	8	Slate	7	1237	
		Lime	15	120		Red Rock	17	1254	
		Slate	12	132		Slate	11	1265	
		Lime	20	152		Little Lime	25	1290	
		Slate	28	180	9	Slate	18	1308	
		10" Casing		188	10	Big Lime	62	1370	
		Lime	12	192		Small showing of gas		1431	
		Slate	23	215		Big Injun	114	1424	
	26	Lime	8	221		Shut down 8 days for 6-5/8" Gas			
		Slate	5	226	21	Slate & Shells	60	1544	
		Coal (Water)	2	228		Gritty Line	35	1579	
		Lime	18	246	22	Slate	10	1589	
		Slate	24	270		Gritty Line	36	1625	
		Lime	12	282	23	Slate & Shells	15	1640	
		Red Rock	18	300		Line	20	1660	
		Lime	20	320	24	Slate & Shells	40	1700	
		Sand	30	350	26	Lime	15	1715	
		ater 8 bailers per hr.			27	Slate & Shells	45	1760	
	27	Pulled 10" Casing & rined.				Lime	28	1788	
	29	Slate	9	359	28	Slate	15	1803	
		10" Casing		361		Berea Grit	12	1815	
		Lime	20	379		Showing of gas		1809	
		Slate	7	386		Slate	10	1825	
		Lime	34	420	29	Lime	13	1838	
	30	Sand	35	455		Slate & Shells	17	1855	
		Lime	95	550	30	Fifty Foot	40	1895	
		Slate	5	555		Gas (Small)		1868	
	31	Lime	69	624		Lime	3	1898	
		Slate	13	637	July	1	Thirty Foot	44	1942
		Sand	43	680		Slate	18	1960	
June	1	Slate	28	708	3	Sand	18	1978	
		Lime	40	748	3	Slate	14	1992	
		Slate & Shells	22	770		Sand & Shells	4	1996	
		1st Salt Sand	62	832	4	Red Rock	3	1999	
	2	Slate	18	850		Sand	18	2017	
		2nd Salt Sand	72	922		Slate	5	2022	
	3	Slate & Shells	39	960	5	Sand	20	2042	
		Lime	56	1016		Slate	8	2050	
	5	Slate	25	1041		Sand	14	2064	
		Lime	39	1080		Red Rock	3	2067	

## LOWMEDES WELL NO. 9 - Cont'd. 2)

5	Sand	8	2075	
6	Slate		2082	
	Sand	25	2107	
7	Shells & Slate	10	2117	
	5-3/16" Casing		2122	
8	Sand	30	2147	
	Red Rock	7	2154	
10	Sand	48	2202	
11	Slate	10	2212	
	Sand	15	2234	
	Showing of gas		2222	
12	Slate	52	2286	
13	Top 5th Sand		2286	
	1st Bit (Broken sand)		2295	
	Showing of gas		2291	
	2nd Bit (2nd Pay sand)			
	3rd Bit (Sand)			
	4th Bit (Sand-no pay)			
	5th Bit (Sand)			
	6th Bit (Slate)			
	Total Depth		2326	
				6-5/8" Casing ...
				5-3/16" Casing ...

Received

MAY - 3 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

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WW-4A  
Revised 6-07

1) Date: 4/14/2014  
2) Operator's Well Number  
Lowndes #9  
3) API Well No.: 47 - 033 - 4289

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>William G. Cather</u>	Name _____
Address <u>800 Davison Run</u>	Address _____
<u>Clarksburg, WV 26301</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Dotson H. Cather, Trustee</u>
	Address <u>315 Spring Street</u>
	<u>Clarksburg, WV 26301</u>
(c) Name _____	Name <u>Laura Goff Davis</u>
Address _____	Address <u>P.O. Box 707</u>
	<u>Clarksburg, WV 26302</u>
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>P.O. Box 2327</u>	Name _____
<u>Buckhannon, WV 26201</u>	Address _____
Telephone _____	

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

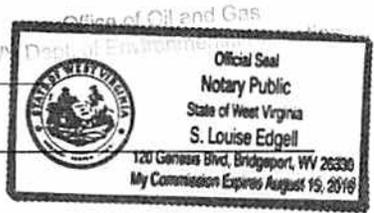
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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 PDC Mountaineer, LLC  
 By: Maren P. Johnson **Received**  
 Its: Designated Agent  
 Address 120 Genesis Blvd.  
Bridgeport, WV 26330  
 Telephone 304-842-3597 **MAY - 7 2014**

Subscribed and sworn before me this 23rd day of April, 2014  
S. Louise Edgell Notary Public  
 My Commission Expires August 15, 2018



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](mailto:depprivacyofficer@wv.gov).

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 PDC Mountaineer, LLC OP Code 494494839

Watershed Davisson Run Quadrangle Wolf Summit 7.5'

Elevation 327 m (1,073 ft.) County Harrison District Clark

Description of anticipated Pit Waste: Produced Fluids

Will a synthetic liner be used in the pit? Yes 20 MIL

Proposed Disposal Method For Treated Pit Wastes:

- ~~Land Application~~ SPJ
- Underground Injection ( UIC Permit Number #2459, Noble County, Ohio )
- 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

*SDCO  
4/24/2014*

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 Steven P. Johnson

Company Official (Typed Name) Steven P. Johnson

Company Official Title Designated Agent

Received

MAY - 7 2014

Subscribed and sworn before me this 23rd day of April, 2014

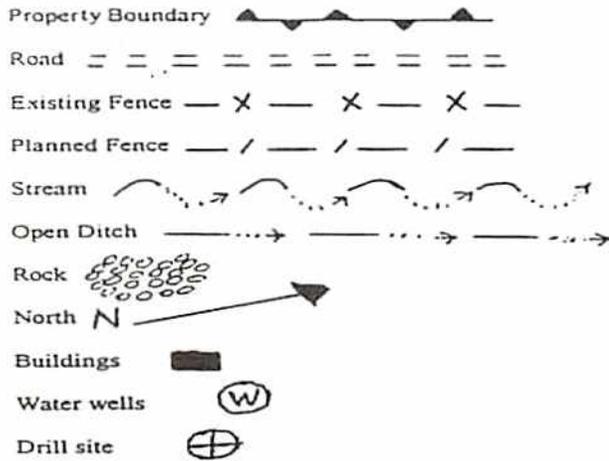
S. Louise Edgell

Notary Public

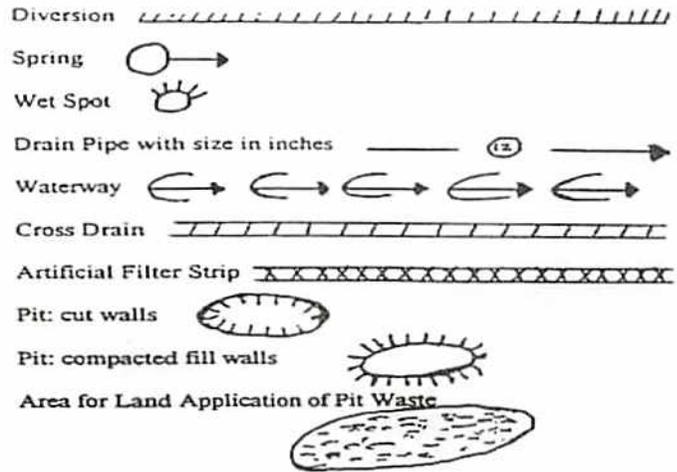
My commission expires August 15, 2018



Office of Oil and Gas  
Department of Environmental Protection



LEGEND



Proposed Revegetation Treatment: Acres Disturbed 1.25 acres +/- Prevegetation pH TBD  
 Lime TBD Tons/acre or to correct to pH 6.5  
 Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)  
 Mulch hay or straw Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Kentucky Bluegrass	40		Orchard Grass	15	
Alsike Clover	5		Alsike Clover	5	
Annual Rye	1				

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: S. D. Ward III

Comments: \_\_\_\_\_

Received

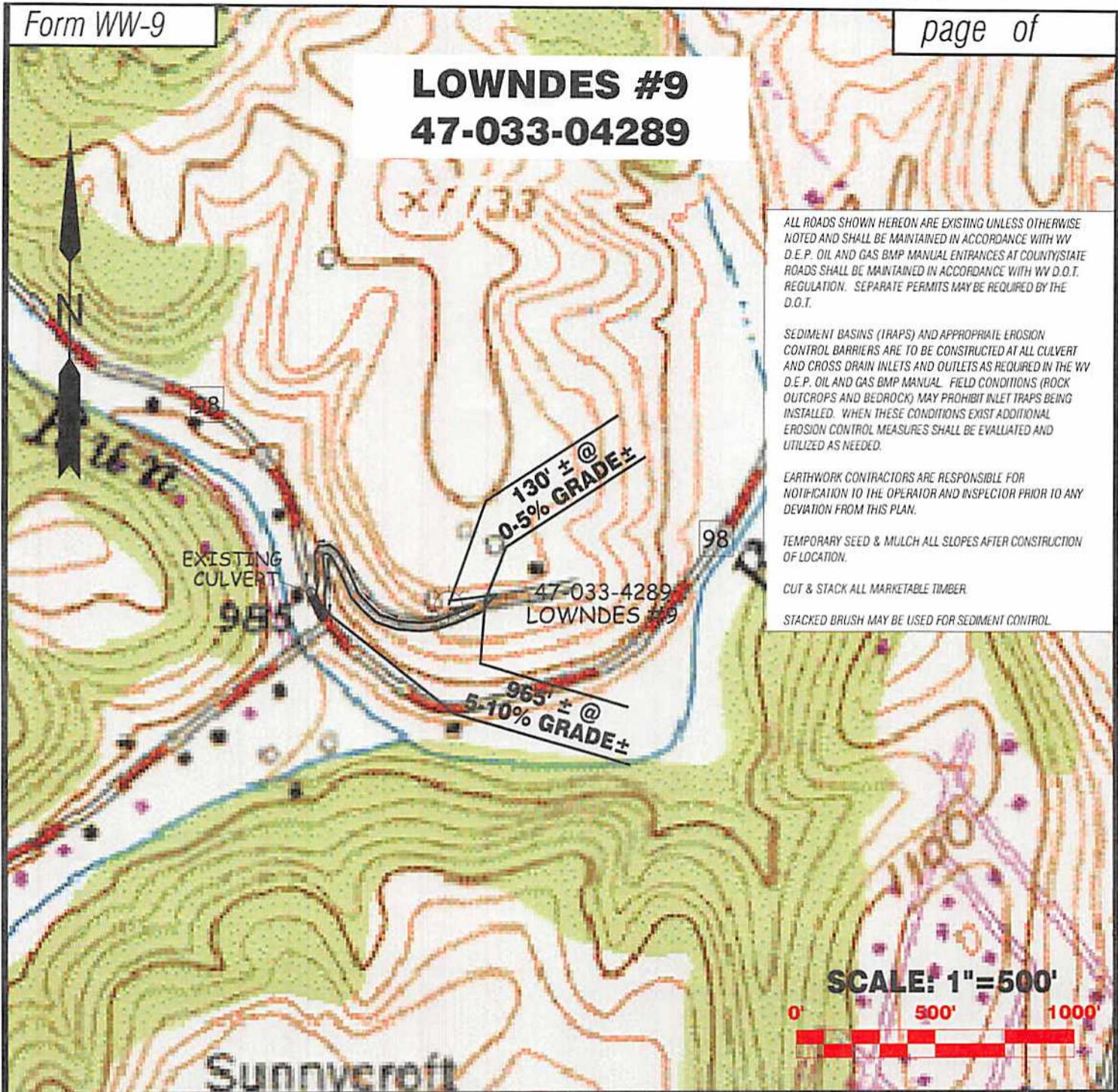
Title: Oil and gas inspector

Date: 4/24/2014

MAY - 7 2014

Field Reviewed? ( ) Yes ( X ) No

# LOWNDES #9 47-033-04289



ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.E.P. OIL AND GAS BMP MANUAL ENTRANCES AT COUNTY/STATE ROADS SHALL BE MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATION. SEPARATE PERMITS MAY BE REQUIRED BY THE D.O.T.

SEDIMENT BASINS (TRAPS) AND APPROPRIATE EROSION CONTROL BARRIERS ARE TO BE CONSTRUCTED AT ALL CULVERT AND CROSS DRAIN INLETS AND OUTLETS AS REQUIRED IN THE WV D.E.P. OIL AND GAS BMP MANUAL. FIELD CONDITIONS (ROCK OUTCROPS AND BEDROCK) MAY PROHIBIT INLET TRAPS BEING INSTALLED. WHEN THESE CONDITIONS EXIST ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.

EARTHWORK CONTRACTORS ARE RESPONSIBLE FOR NOTIFICATION TO THE OPERATOR AND INSPECTOR PRIOR TO ANY DEVIATION FROM THIS PLAN.

TEMPORARY SEED & MULCH ALL SLOPES AFTER CONSTRUCTION OF LOCATION.

CUT & STACK ALL MARKETABLE TIMBER

STACKED BRUSH MAY BE USED FOR SEDIMENT CONTROL

**SCALE: 1"=500'**



**NOT TO SCALE**

**Professional Energy Consultants**  
A DIVISION OF SMITH LAND SURVEYING

SURVEYORS PROJECT MGMT. ENGINEERS ENVIRONMENTAL

P.O. Box 130  
Geneva, WV 25881  
(304) 462-8634

8022 Dixon Bottom Road  
Shady Side, OH 43087  
(740) 871-8911

HONESTY. INTEGRITY. QUALITY.

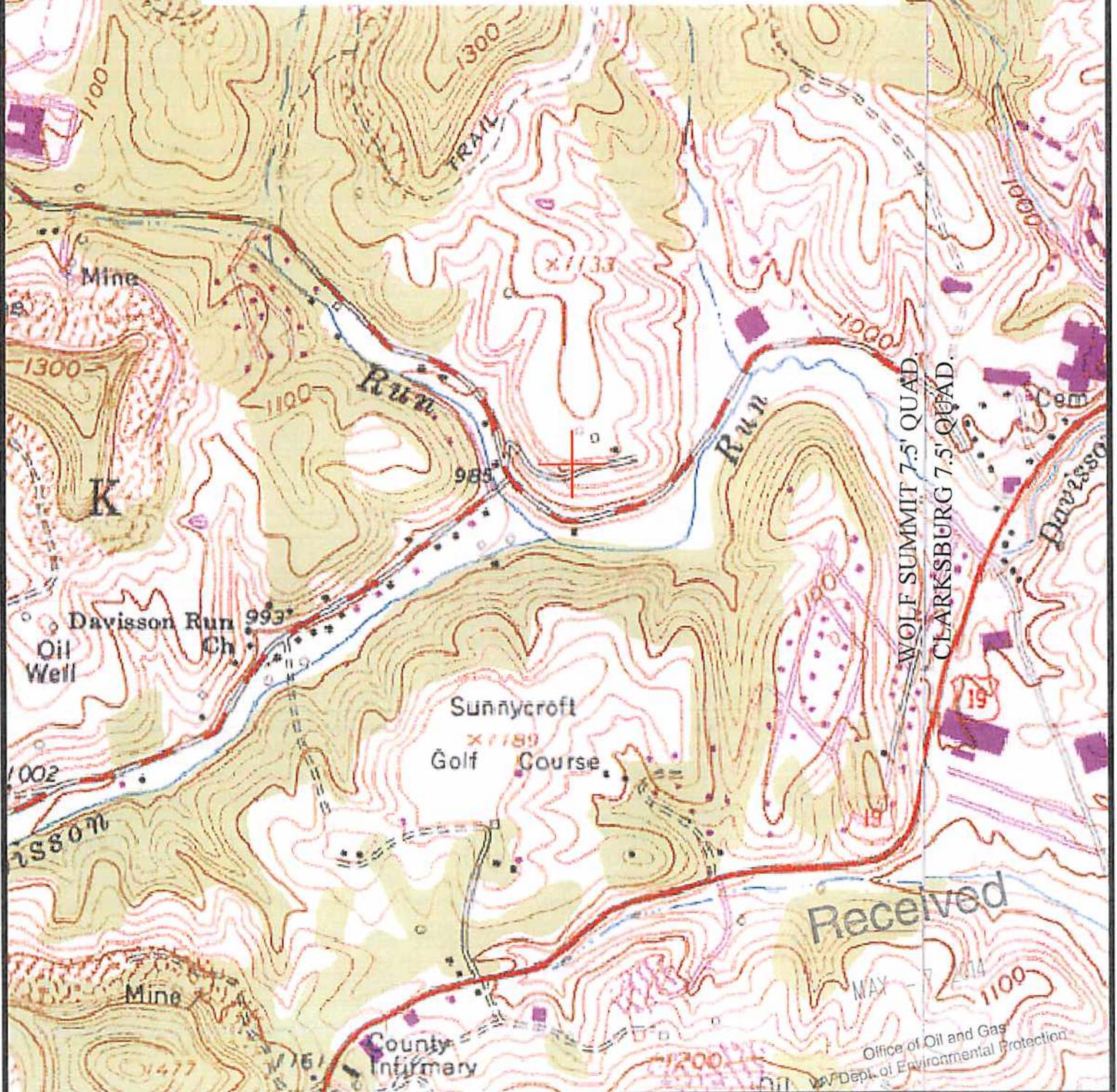
DRAWN BY K.G.M.	FILE NO. 8194	DATE 04-09-14	CADD FILE: 8194REC9.DWG
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TOPO & AERIAL  
SECTION OF USGS  
WOLF SUMMIT  
7.5' QUADRANGLE

Received  
MAY - 7 2014

Office of Oil and Gas  
Environmental Protection  
PDC MOUNTAINEER

# LOWNDES(GOFF) LEASE WELL NO. 9 (A.P.I. 47-033-04289)



Professional Energy Consultants  
A DIVISION OF SMITH LAND SURVEYING

Surveyors  
Project Mgmt.



Business  
Environmental

P.O. Box 108  
Greenville, WV 26034  
(304) 462-8324

8083 Doline Station Road  
Shawnee, OH 43087  
(614) 871-9911

Honesty. Integrity. Quality.

TOPO SECTIONS OF: WOLF SUMMIT & CLARKSBURG 7.5'  
FILE NO. 8194      DATE: 03/11/14      SCALE: 1"=1,000'

47 03 30 4 2 8 9<sup>P</sup>

WW-7  
8-30-06



CK 30058  
100

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

API: 47-033-4289 WELL NO.: Lowndes #9

FARM NAME: Lowndes (Goff)

RESPONSIBLE PARTY NAME: PDC Mountaineer, LLC

COUNTY: Harrison DISTRICT: Clark

QUADRANGLE: Wolf Summit

SURFACE OWNER: Laura Goff Davis (TM 305 Parcel 32)

ROYALTY OWNER: Laura Goff Davis et al

UTM GPS NORTHING: 4346866

UTM GPS EASTING: 553160 GPS ELEVATION: 327 m 1072'

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

Received

MAY - 7 2014

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.

Gregory A. Smith, P.S.  
Signature

Agent  
Title

3-11-14  
Date

Office of Oil and Gas  
WV Dept. of Environmental Protection



**PDC MOUNTAINEER**

PDC Mountaineer, LLC  
120 Genesis Boulevard  
Bridgeport, WV 26330  
304-842-3597  
304-808-0913 (fax)

May 5, 2014

Office of Oil and Gas  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304-2345  
Attn: Justin Nottingham

Re: PDC Mountaineer, LLC; Application to Plug and Abandon 47-033-04289 (Lowndes #9),  
Clark District, Harrison County, WV.

Dear Mr. Nottingham,

Please find subject application and \$100.00 fee enclosed. If you have any questions or comments regarding this application feel free to contact me at 304-842-3597 x 6558.

Sincerely,

Steven P. Johnson  
Senior Regional Landman / Agent

Enc.

Received  
MAY - 7 2014  
Office of Oil and Gas  
WV Dept. of Environmental Protection