

# CUMBERLEDGE LEASE 54 ACRES±

R. SMITH, ET AL  
30.69 ACRES±

TIMOTHY PITTS  
45.13 ACRES±

P. JUDD, ET AL 34.63  
ACRES±

D. MELLOTT  
17 ACRES±

TIMOTHY  
PITTS, ET AL  
29.89 ACRES±

WELL NO. 1  
A.P.I. #47-017-4008  
GEORGE PAYTON  
AND DONALD V.  
SANDSTORM  
24.11 ACRES±

O. DODRILL  
40.99 ACRES±

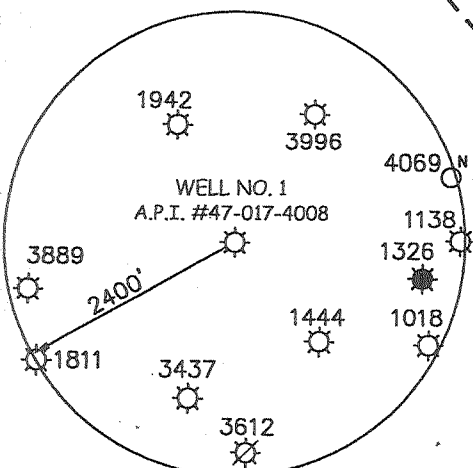
WELL NO. 1  
A.P.I. #47-085-4008  
STATE PLANE  
COORDINATES

(N) 317,719  
(E) 1,665,870

## WELL NO. 1 A.P.I. #47-017-4008

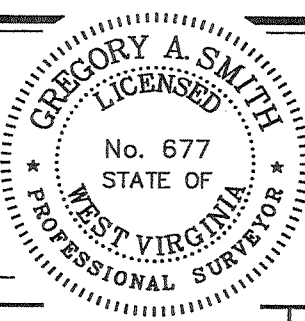
### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED RECORDED IN DEED BOOK 266 AT PAGE 88.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2006.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
 DATE MAY 21, 20 07  
 OPERATORS WELL NO. CUMBERLEDGE #1  
 API WELL NO. 47-017-04008F  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 6461P1 (234-35)  
 PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

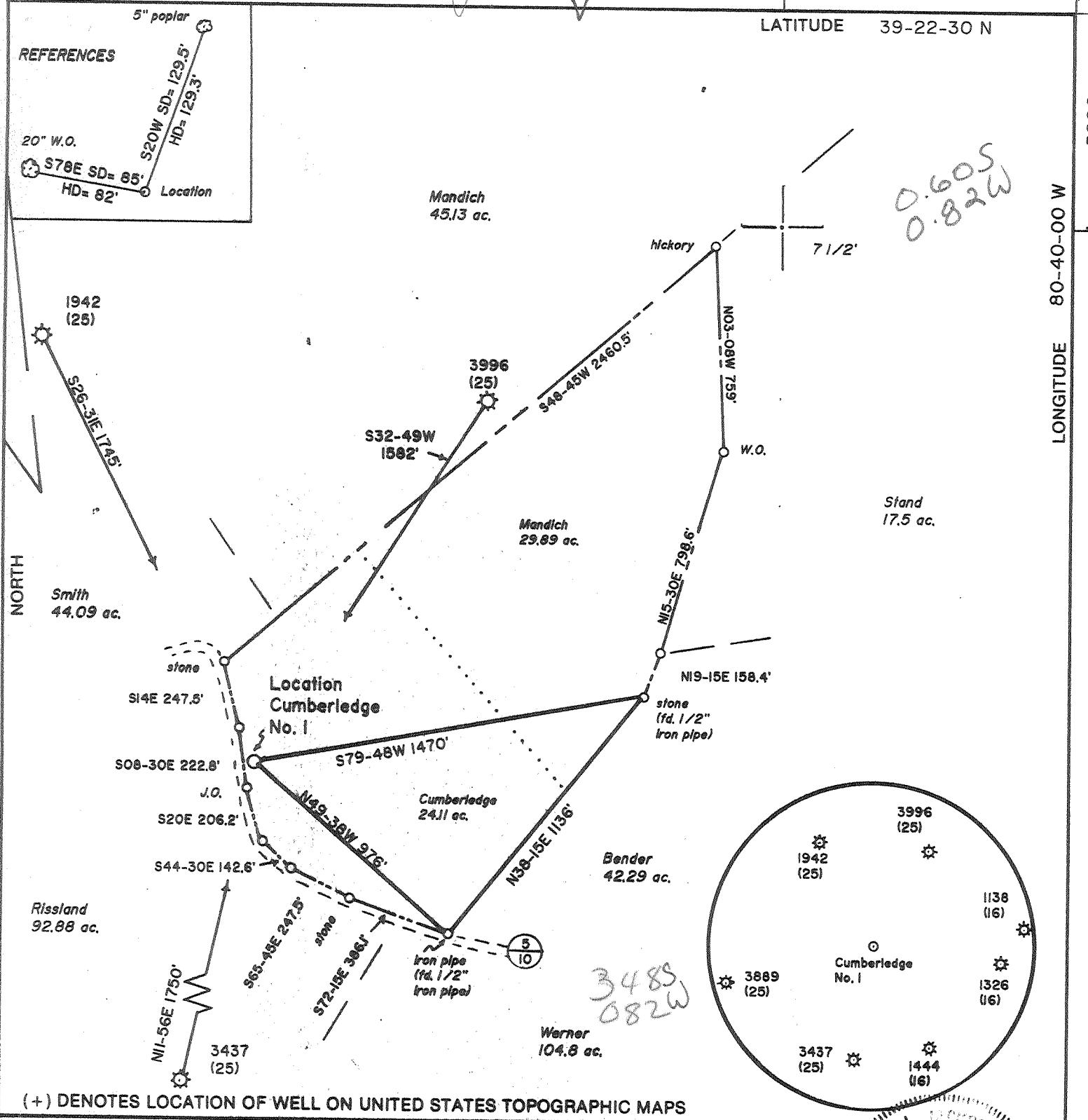
STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1,232' WATERSHED TRIBUTARY OF RIGGINS RUN  
 DISTRICT MCCLELLAN COUNTY DODDRIDGE QUADRANGLE SMITHBURG 7.5'  
 SURFACE OWNER GEORGE D. PAYTON AND DONALD V. SANDSTORM ACREAGE 24.11±  
 ROYALTY OWNER LAMBERT CUMBERLEDGE, ET AL LEASE ACREAGE 54±  
 PROPOSED WORK: LEASE NO. 459000  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD   
 FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION KEENER/GORDON  
 ESTIMATED DEPTH 2,250'/2,950'

WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ALAN H. SMITH  
 ADDRESS 120 GENESIS BOULVARD BRIDGEPORT, WV 26330 ADDRESS 120 GENESIS BOULVARD BRIDGEPORT, WV 26330

COUNTY NAME DODD  
 PERMIT 4008 F

JUN 15 2007



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION Road Junction 4400'  
NW of Location: elev. 859'

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 ENERGY.  
 (SIGNED) David J. Jackson  
 R.P.E. \_\_\_\_\_ L.L.S. 708



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE December 10, 19 92  
 OPERATOR'S WELL NO. Cumberledge No. 1  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_

LOCATION: ELEVATION 1228 WATER SHED Riggins Run  
 DISTRICT McClellan 5 COUNTY Doddridge  
 QUADRANGLE Smithburg 7 1/2'

SURFACE OWNER Lambert Cumberledge ACREAGE 24.11  
 OIL & GAS ROYALTY OWNER Lambert Cumberledge et al LEASE ACREAGE 54  
 LEASE NO. 459000

PROPOSED WORK: DRILL \_\_\_ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_

TARGET FORMATION Benson ESTIMATED DEPTH 5000

WELL OPERATOR Petroleum Development Corp. DESIGNATED AGENT Eric R. Stearns  
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

COUNTY NAME  
 PERMIT

DEC 10 1992

687

6.6 Smithburg Plat Mandich 1092

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

Well Operator's Report of Well Work

Farm name: Cumberledge, Lambert Operator Well No.: CUMBERLEDGE #1

LOCATION: Elevation: 1228.00 Quadrangle: SMITHBURG

District: MCCLELLAN County: DODDRIDGE  
Latitude: 3200 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 4300 Feet West of 80 Deg. 40 Min. 0 Sec.

Company: PETROLEUM DEVELOPMENT COR  
P. O. BOX 26  
BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD  
Permit Issued: 12/18/92  
Well work Commenced: 03/28/93  
Well work Completed: 04/01/93  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary x Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5440'  
Fresh water depths (ft) \_\_\_\_\_  
n/a  
Salt water depths (ft) \_\_\_\_\_  
n/a

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	179'	179'	108 sks
8 5/8"	1977'	1977'	490 sks
4 1/2"	5408'	5408'	547 sks

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 349-354

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 5319-5322  
Gas: Initial open flow 34 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 375 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 4 Hours  
Static rock Pressure 1350 psig (surface pressure) after 72 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: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns

Date: April 27, 1993

Reviewed TMB  
Recorded \_\_\_\_\_

MAY 07 1993

Cumberledge #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	13(5319' - 5322')	50	340	500	50.9

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	1977	
Maxton	1977	2055	
sand, shale	2055	2150	Coal 349' - 354'
Big Lime	2150	2301	gas chk @ 2101' No Show
sand, shale	2301	2305	
Big Injun	2305	2383	gas chk @ 2311' No Show
sand, shale	2383	2534	
Weir	2534	2585	
sand, shale	2585	2734	
Berea	2734	2755	gas chk @ 2438' No Show
sand, shale	2755	2925	
Gordon	2925	2978	
sand, shale	2978	3242	gas chk @ 2622' no show
5th	3242	3278	gas chk @ 2808' no show
sand, shale	3278	3567	gas chk @ 3059' no show
Warren	3567	3644	gas chk @ 3403' no show
sand, shale	3644	3680	
Speechley	3680	4010	gas chk @ 3812' no show
sand, shale	4010	4045	
Balltown	4045	4414	
sand, shale	4414	4455	gas chk @ 4911' no show
Bradford	4455	4574	gas chk @ 5255' no show
sand, shale	4574	4769	
Riley	4769	5238	
sand, shale	5238	5286	gas chk @ 5317' 8/10-1" w/H2O
Benson	5286	5441	Driller TD
sand, shale		5440	Logger TD

DF = 424

DFT = 435

017-4008  
Issued 12/18/92

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

Page 1 of 1  
Expires 12/18/94

- 1) Well Operator: 687 Petroleum Development Corporation 38300 (5) 610
- 2) Operator's Well Number: Cumberland #1 3) Elevation: 1228'
- 4) Well type: (a) Oil  or Gas   
(b) If Gas: Production  Underground Storage   
Deep  Shallow
- 5) Proposed Target Formation(s): Benson Sand 435
- 6) Proposed Total Depth: 5500 feet
- 7) Approximate fresh water strata depths: 222', 1127', 1227', 1312'
- 8) Approximate salt water depths: None Reported
- 9) Approximate coal seam depths: None Reported
- 10) Does land contain coal seams tributary to active mine? Yes  No
- 11) Proposed Well Work:  
Drill & stimulate new well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4	H-40	42#	150	150	
Fresh Water						380 SRA 11.3
Coal						380 SRA 11.2.2
Intermediate	8 5/8	H-40	20/23	1450	1450	Surface
Production	4 1/2	J-55	10.5	5500	5500	450 sks
Tubing						380 SRA 11.1
Liners						

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond Blanket  Agent  
 (Type)

16571

002674  
44

1) Date: December 11, 1992  
2) Operator's well number  
Cumberledge #1  
3) API Well No: 47 - 017 - 4008  
State - County - Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
- (a) Name Lambert Cumberledge  
Address Route 2, Box 174  
West Union, WV 26456
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name No Declaration on File  
Address \_\_\_\_\_
- Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Mike Underwood  
Address Route 2, Box 135  
Salem, WV 26426  
Telephone (304)-782-1043

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

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:

- XX Personal Service (Affidavit attached)
- \_\_\_\_\_ Certified Mail (Postmarked postal receipt attached)
- \_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

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, 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.

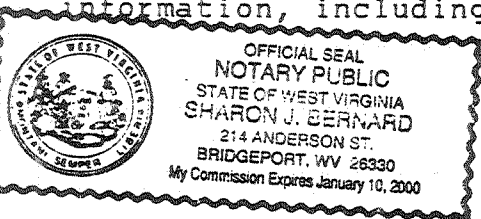
I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Petroleum Development Corporation  
By: [Signature]  
Its: Geologist  
Address P.O. Box 26  
Bridgeport, WV 26330  
Telephone (304) 842-6256

Subscribed and sworn before me this 11th day of December, 19 92

My commission expires January 10, 2000

[Signature] Notary Public



WR-35  
Rev (5-01)

DATE: 03/20/08  
API #: 47-017-04008 -F

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

Well Operator's Report of Well Work

Farm name: Payton, George D. Operator Well No.: Cumberledge I

LOCATION: Elevation: 1228.00 Quadrangle: SMITHBURG  
District: MCCLELLAN County: DODDRIDGE  
Latitude: 3200 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 4300 Feet West of 80 Deg. 40 Min. 0 Sec.

Company: Petroleum Development Corporation

Address: 120 Genesis Boulevard  
Bridgeport, WV 26330  
Agent: Alan H. Smith  
Inspector:  
Date Permit Issued: 06/12/07  
Date Well Work Commenced: 7/24/2007  
Date Well Work Completed: 7/24/2007  
Verbal Plugging:  
Date Permission granted on:  
Rotary X Cable Rig  
Total Depth (feet): 5440'  
Fresh Water Depth (ft.):  
Salt Water Depth (ft.):  
Is coal being mined in area (N/Y)? N  
Coal Depths (ft.): 349-354

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	179'	179'	108 sks
8 5/8"	1977'	1977'	490 sks
4 1/2"	5408'	5408'	547 sks

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Producing formation Benson Pay zone depth (ft) 5319-5322  
Gas: Initial open flow 34 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 375 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 4 Hours  
Static rock Pressure 1350 psig (surface pressure) after 72 Hours

Second formation gordon Pay zone depth (ft) 2954-76'  
Gas: Initial open flow          MCF/d Oil: Initial open flow          Bbl/d  
Final open flow 60 MCF/d Final open flow          Bbl/d  
Time of open flow between initial and final tests          Hours  
Static rock Pressure 200 psig (surface pressure) after 48 Hours

Second producing formation keener Pay zone depth (ft) 2256-67'  
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 comm. psig (surface pressure) after          Hours

MAY 02 2008

DOOR 4008 F

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Signed: \_\_\_\_\_

By: Alan H. Smith

Date: 03/20/08

Cumberledge #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
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W E L L L O G

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sand, shale	2055	2150	Coal 349' -354'
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sand, shale	2301	2305	
Big Injun	2305	2383	gas chk @ 2311' No Show
sand, shale	2383	2534	
Weir	2534	2585	
sand, shale	2585	2734	
Berea	2734	2755	gas chk @ 2438' No Show
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sand, shale	4574	4769	
Riley	4769	5238	
sand, shale	5238	5286	gas chk @ 5317' 8/10-1" w/H2O
Benson	5286	5441	Driller TD
sand, shale	5441	5440	Logger TD