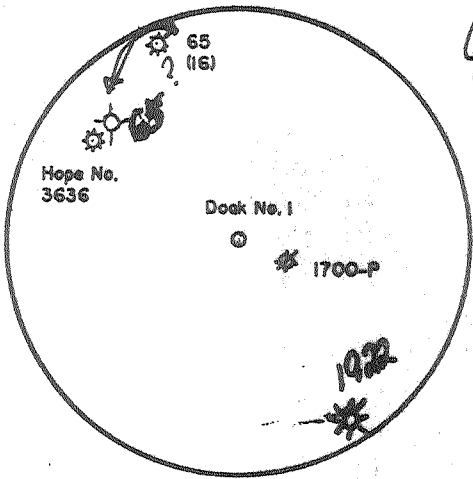


*Janice
5/14/93*

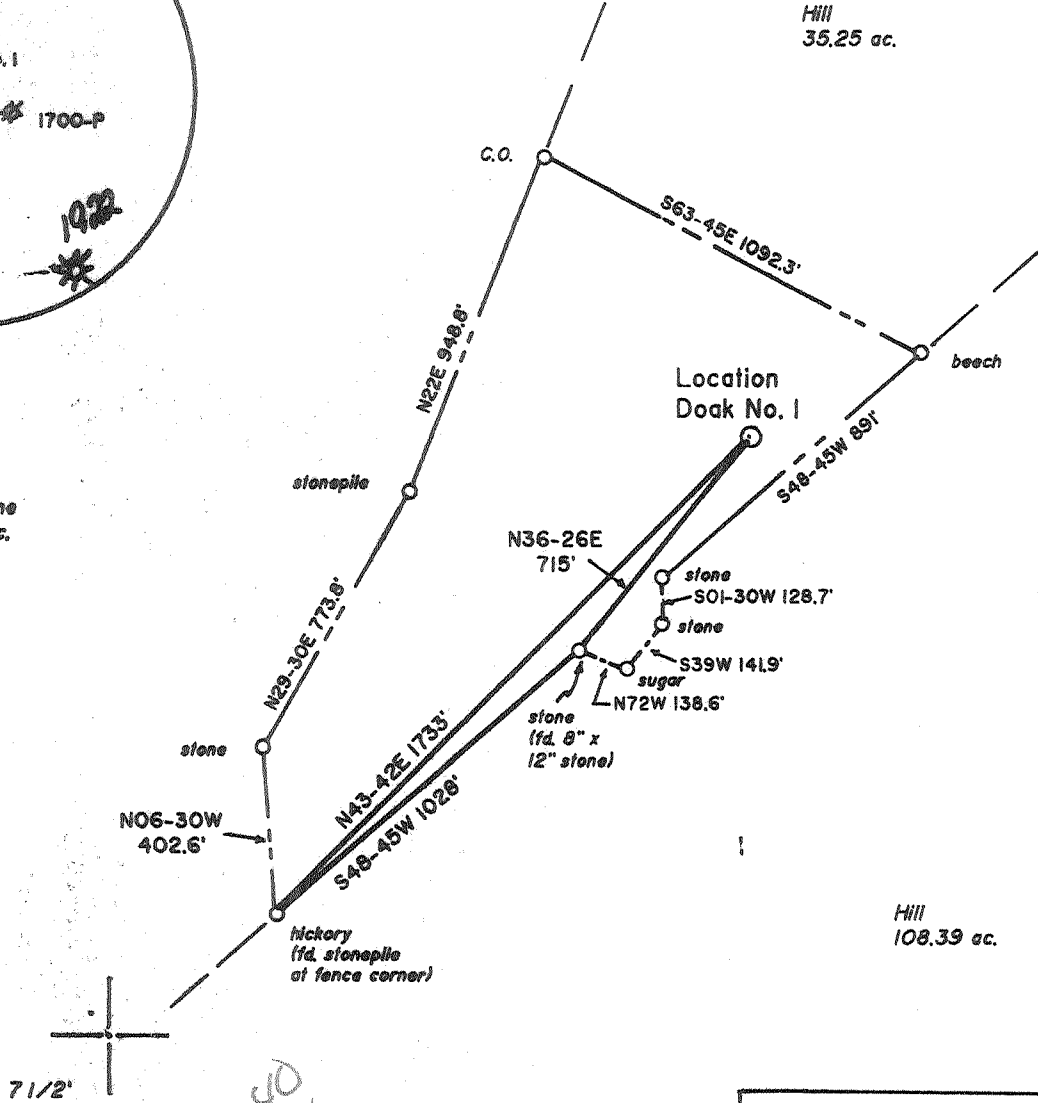


Hill
35.25 ac.

Romine
29 ac.

Hill
108.39 ac.

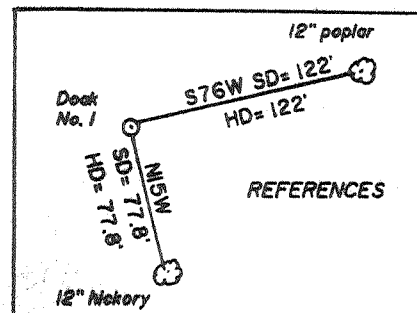
NORTH



7 1/2'

*2.40
2.02*

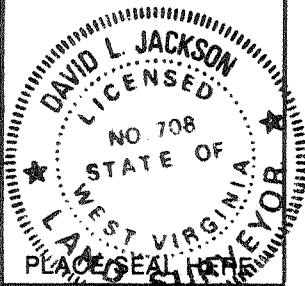
*528 S
425 W*



(+) 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 2470'
South of Location: elev. 838'

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 L. Jackson
 R.P.E. _____ L.L.S. 708



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



DATE May 3, 1993
 OPERATOR'S WELL NO. Doak No. 1
 API WELL NO. _____

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

47 - 017 - 4018
 STATE COUNTY PERMIT

LOCATION: ELEVATION 906 WATER SHED Flint Run
 DISTRICT Grant 3 COUNTY Doddridge

QUADRANGLE Smithburg 7 1/2' Center point C
 SURFACE OWNER James A. Hill et ux ACREAGE 34.87

OIL & GAS ROYALTY OWNER Jeanette Doak et al LEASE ACREAGE 36
 LEASE NO. 459700

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. 687 DESIGNATED AGENT Eric R. Stearns
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

COUNTY NAME

PERMIT

MAY 3 1993

RECEIVED
WV Division of
Environmental Protection

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

Well Operator's Report of Well Work

Farm name: HILL, JAMES & WILMA

Operator Well No.: DOAK #1

LOCATION: Elevation: 906.00 Quadrangle: SMITHBURG

District: GRANT County: DODDRIDGE
Latitude: 12590 Feet South of 39 Deg. 22Min. 30 Sec.
Longitude 10750 Feet West of 80 Deg. 37 Min. 30 Sec.

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

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD
Permit Issued: 05/14/93
Well work Commenced: 06/04/93
Well work Completed: 06/10/93
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 5058'
Fresh water depths (ft) _____
25; 230
Salt water depths (ft) _____
n/a
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 210-213

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	179'	179'	90 sks
8 5/8"	1489'	1489'	356 sks
4 1/2"	5020'	5020'	552 sks

OPEN FLOW DATA

Producing formation Benson/Riley Pay zone depth (ft) 4413-4414.5
 Gas: Initial open flow 125 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 411 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 4 Hours
 Static rock Pressure 450 psig (surface pressure) after 72 Hours

Second producing formation Gordon Pay zone depth (ft) 2565-2568
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow co-mingled 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.

Eric R. Stearns

By: _____
Date: July 2, 1993

JUL 9 1993

Reviewed TMB
Recorded _____

WELL #1

AGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
	Benson	6 (4413' - 4414')	100	700	500	94
	Riley	6 (4906' - 4907')				
	Gordon	13 (2565' - 2568')	50	400	500	65

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
- GL	0	10	
nd, shale, RR	10	1604	1/2" water @25'
ktion	1604	1671	1/2" water @230'
nd, shale	1671	1783	Coal 210' - 213'
g Lime	1783	1880	gas chk @ 1706' No Show
nd, shale	1880	1884	gas chk @ 1882' 2/10 -2" w/water
g Injun	1884	2002	
nd, shale	2002	2159	gas chk @ 2098' 4/10 -2" w/water
ir	2159	2209	
nd, shale	2209	2330	gas chk @ 2251' 2/10 -2" w/water
rea	2330	2356	
nd, shale	2356	2545	gas chk @ 2405' 2/10 -2" w/water
rdon	2545	2556	
nd, shale	2556	2845	gas chk @ 2602' 6/10 -7" w/water
h	2845	2892	
nd, shale	2892	3200	gas chk @ 2991' 4/10 -7" w/water
rren	3200	3320	
nd, shale	3320	3382	
eechley	3382	3650	gas chk @ 3395' 2/10 -7" w/water
nd, shale	3650	3696	
lltown	3696	4090	
nd, shale	4090	4109	
adford	4109	4216	
nd, shale	4216	4378	
ley	4378	4828	gas chk @ 4778' 2/10 -7" w/water
nd, shale	4828	4884	
nson	4884	4938	gas chk @ 4934' 130/10 -2" w/water
nd, shale	4938	5056	Driller TD
		5058	Logger TD
			gas chk @ 5056' 140/10 -2" w/water
			gas chk @ collars 140/10 -2" w/water

DF = 424
DFT = 435

17204

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WV Division of Environmental Protection

017-4018
issued 05/14/93
Expires 05/14/95

FORM WW-2B

MAY 12 83

Page ___ of ___

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

Office of Oil & Gas WELL WORK PERMIT APPLICATION

- 1) Well Operator: Petroleum Development Corporation ⁰⁸⁷ 38200 (3) 610
- 2) Operator's Well Number: Doak #1 3) Elevation: 906'
- 4) Well type: (a) Oil ___ / or Gas X /
(b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow X / ⁴³⁹
- 5) Proposed Target Formation(s): Alexander Sand
- 6) Proposed Total Depth: 5800 feet
- 7) Approximate fresh water strata depths: 25', 180', 1250'
- 8) Approximate salt water depths: None Reported
- 9) Approximate coal seam depths: 220'
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 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	
Conductor	11 3/4	H-40	42#	150	150	---
Fresh Water						38CSR18 11.3
Coal						38CSR18 11.2.2
Intermediate	8 5/8	H-40	20/23	1450'	1450'	Surface
Production	4 1/2	J-55	10.5	5800'	5800'	450 sks
Tubing						38CSR18 11.1
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

004181 a

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

17204

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WV Division of
Environmental Protection

MAY 12 93

- 1) Date: May 5, 1993
- 2) Operator's well number Doak #1
- 3) API Well No: 47 - 017 - 4018
State - County - Permit

Permitting
Office of Oil & Gas
STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name James & Wilma Hill
Address Route 2, Box 195
West Union, WV 26456
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name _____
Address _____
 - (b) Coal Owner(s) with Declaration
Name Consolidation Coal Co., Neil Jenkins
Address P.O. Box 1314
Morgantown, WV 26507-1314
 - 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:

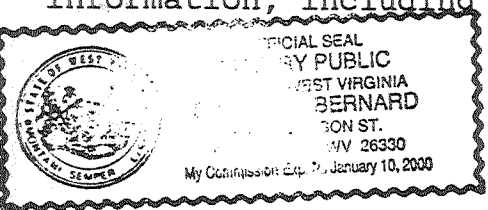
_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

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:
 _____ 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 5th day of May, 19 93

[Signature] Notary Public
 My commission expires January 10, 2000