

SURVEYED LONG. 80° 41' 33.3"
DECIMAL: 80.69259

7,315'

LATITUDE 39° 22' 30"

HERBERT DOAK LEASE

54.63 AC.±

API: 47-017-04022

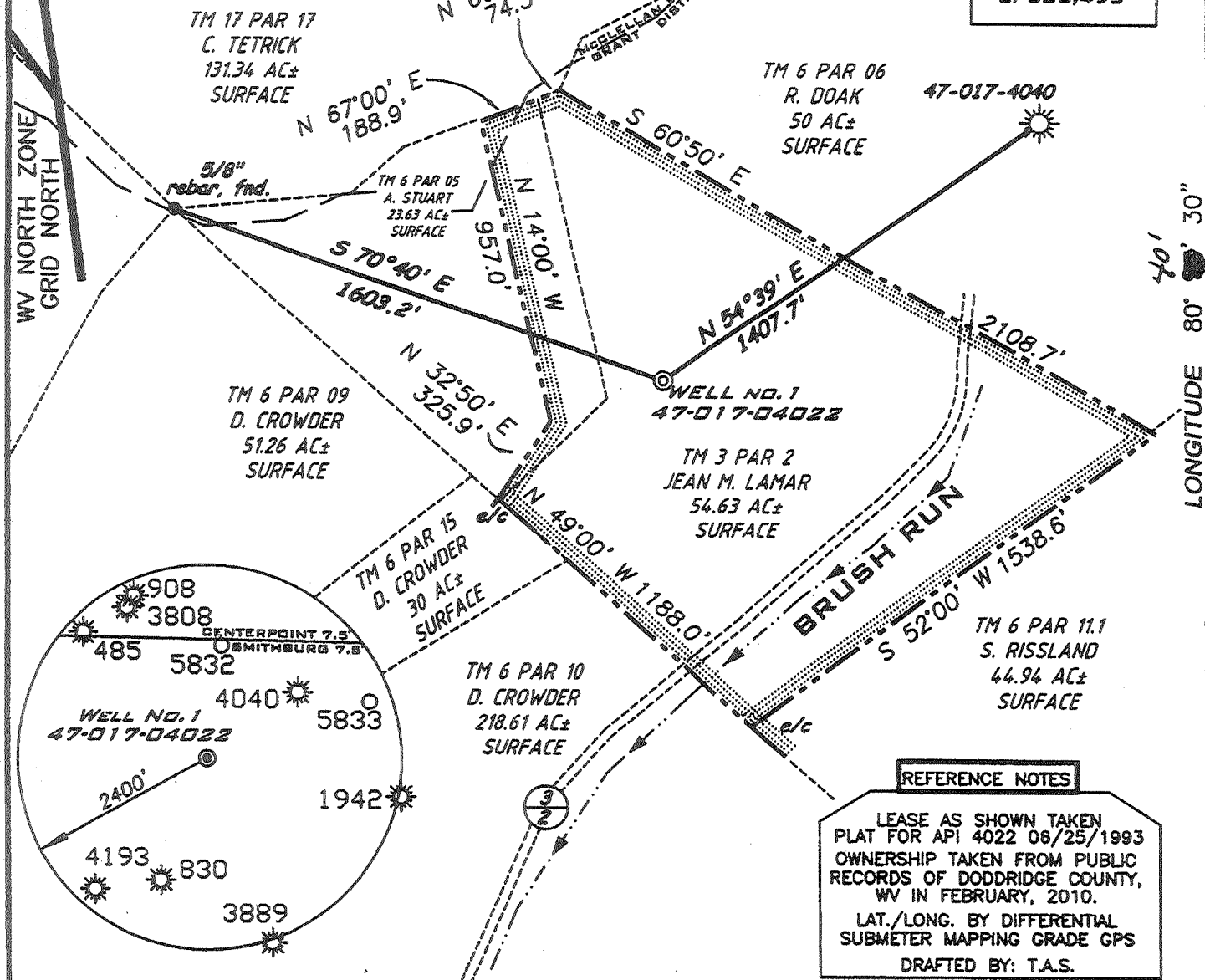
WELL NO. 1

EXISTING WELL COORDINATES

NAD 27
N) 319,530
E) 1,662,855

NAD 83
N) 863681
E) 2,055,473

NAD83 UTM ZONE 17
N) 4,358,020
E) 526,495



REFERENCE NOTES

LEASE AS SHOWN TAKEN
PLAT FOR API 4022 06/25/1993
OWNERSHIP TAKEN FROM PUBLIC
RECORDS OF DODDRIDGE COUNTY,
WV IN FEBRUARY, 2010.

LAT./LONG. BY DIFFERENTIAL
SUBMETER MAPPING GRADE GPS

DRAFTED BY: T.A.S.

(*) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER W0100239 (WB17-15)

DRAWING NUMBER W0100239_WP1.dwg

SCALE 1" = 500'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING GRADE 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 ENVIRONMENTAL PROTECTION

P.S. 1006 *Terry A. Shreve*



ANGLE RIGHT
LAND SURVEYING, LLC.

GRANTSVILLE, WV 26147 (304) 324-0068
WESTON, WV 26482 (304) 269-8608



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

DATE: FEBRUARY 18, 2010

OPERATORS WELL NO. HERBERT DOAK NO.1

API WELL NO. 47-017-04022 F

STATE COUNTY PERMIT CANCELLED

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

LOCATION ELEVATION 1238' WATERSHED BRUSH RUN

DISTRICT GRANT COUNTY DODDRIDGE

QUADRANGLE SMITHBURG 7.5' LEASE NUMBER _____

SURFACE OWNER JEAN M. LAMAR ACREAGE 54.63±

OIL & GAS ROYALTY OWNER HERBERT L. DOAK, et al LEASE ACREAGE 54.63±

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

REWORK BIG INJUN AND GORDON FORMATIONS PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION GORDON ESTIMATED DEPTH 2993' (PREV. TD. 5444')

WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ALAN SMITH

ADDRESS 120 GENESIS BLVD., BRIDGEPORT, WV 26330 ADDRESS 120 GENESIS BLVD., BRIDGEPORT, WV 26330

COUNTY NAME PERMIT

051172013

SURVEYED LONG. 80° 41' 33.3"
DECIMAL: 80.69259

7,315'

LATITUDE 39° 22' 30"

HERBERT DOAK LEASE

54.63 AC.±

API: 47-017-04022

WELL NO. 1

EXISTING WELL COORDINATES
NAD 27
N) 319,530
E) 1,662,855
NAD 83
N) 863681
E) 2,059,473
NAD83 UTM ZONE 17
N) 4,358,020
E) 528,495

TM 17 PAR 17
C. TETRICK
131.34 AC±
SURFACE

TM 6 PAR 06
R. DOAK
50 AC±
SURFACE
47-017-4040

WV NORTH ZONE
GRID NORTH

5/8" rebar, fnd.

TM 6 PAR 05
A. STUART
23.63 AC±
SURFACE

TM 6 PAR 09
D. CROWDER
51.26 AC±
SURFACE

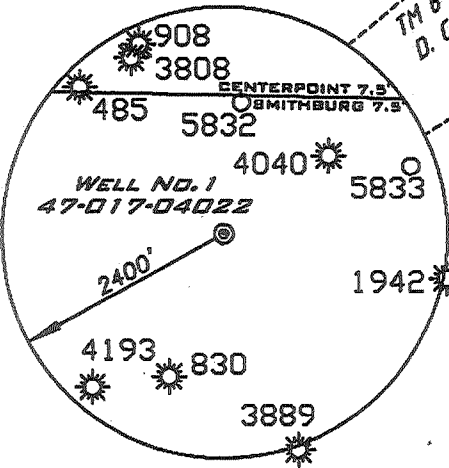
WELL NO. 1
47-017-04022

TM 3 PAR 2
JEAN M. LAMAR
54.63 AC±
SURFACE

TM 6 PAR 15
D. CROWDER
30 AC±
SURFACE

TM 6 PAR 10
D. CROWDER
218.61 AC±
SURFACE

TM 6 PAR 11.1
S. RISSLAND
44.94 AC±
SURFACE



REFERENCE NOTES
LEASE AS SHOWN TAKEN
PLAT FOR API 4022 06/25/1993
OWNERSHIP TAKEN FROM PUBLIC
RECORDS OF DODDRIDGE COUNTY,
WV IN FEBRUARY, 2010.
LAT./LONG. BY DIFFERENTIAL
SUBMETER MAPPING GRADE GPS
DRAFTED BY: T.A.S.

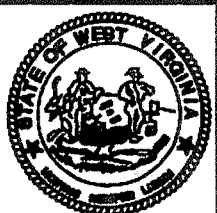
(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER W0100239 (WB17-15)
DRAWING NUMBER W0100239_WP1.dwg
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1/200
PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
GRADE GPS

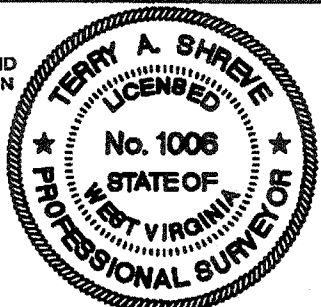
I THE UNDERSIGNED HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 1006

Terry A. Shreve



ANGLE RIGHT
LAND SURVEYING, LLC.
GRANTSVILLE, WV 26147 WESTON, WV 26152
(304) 354-0065 (304) 269-3608



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

DATE: FEBRUARY 18, 2010

OPERATORS WELL NO. HERBERT DOAK NO.1

API WELL NO. 47-017-04022 F
STATE COUNTY PERMIT

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

LOCATION ELEVATION 1238' WATERSHED BRUSH RUN

DISTRICT GRANT COUNTY DODDRIDGE
QUADRANGLE SMITHBURG 7.5' LEASE NUMBER _____

SURFACE OWNER JEAN M. LAMAR ACREAGE 54.63±

OIL & GAS ROYALTY OWNER HERBERT L. DOAK, et al LEASE ACREAGE 54.63±

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

REWORK BIG INJUN AND GORDON FORMATIONS PLUG & ABANDON CLEAN OUT & REPLUG

TARGET FORMATION GORDON ESTIMATED DEPTH 2993' (PREV. TD. 5444')

WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ALAN SMITH

ADDRESS 120 GENESIS BLVD., BRIDGEPORT, WV 26330 ADDRESS 120 GENESIS BLVD., BRIDGEPORT, WV 26330

COUNTY NAME
PERMIT

LATITUDE 39-22-30 N

3808 (25)

Janie 6/30/93

Tetrick 131.34 ac.

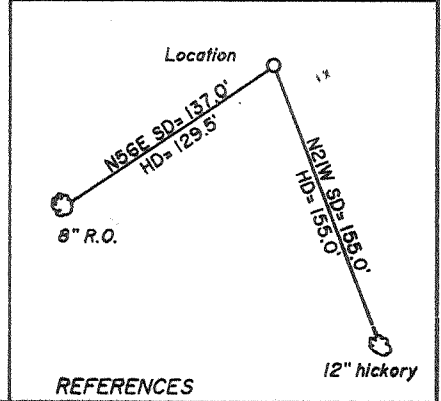
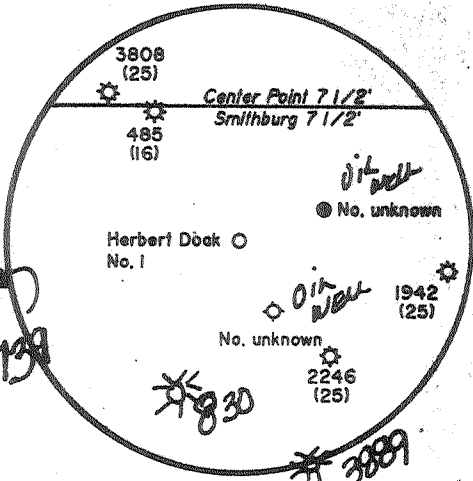
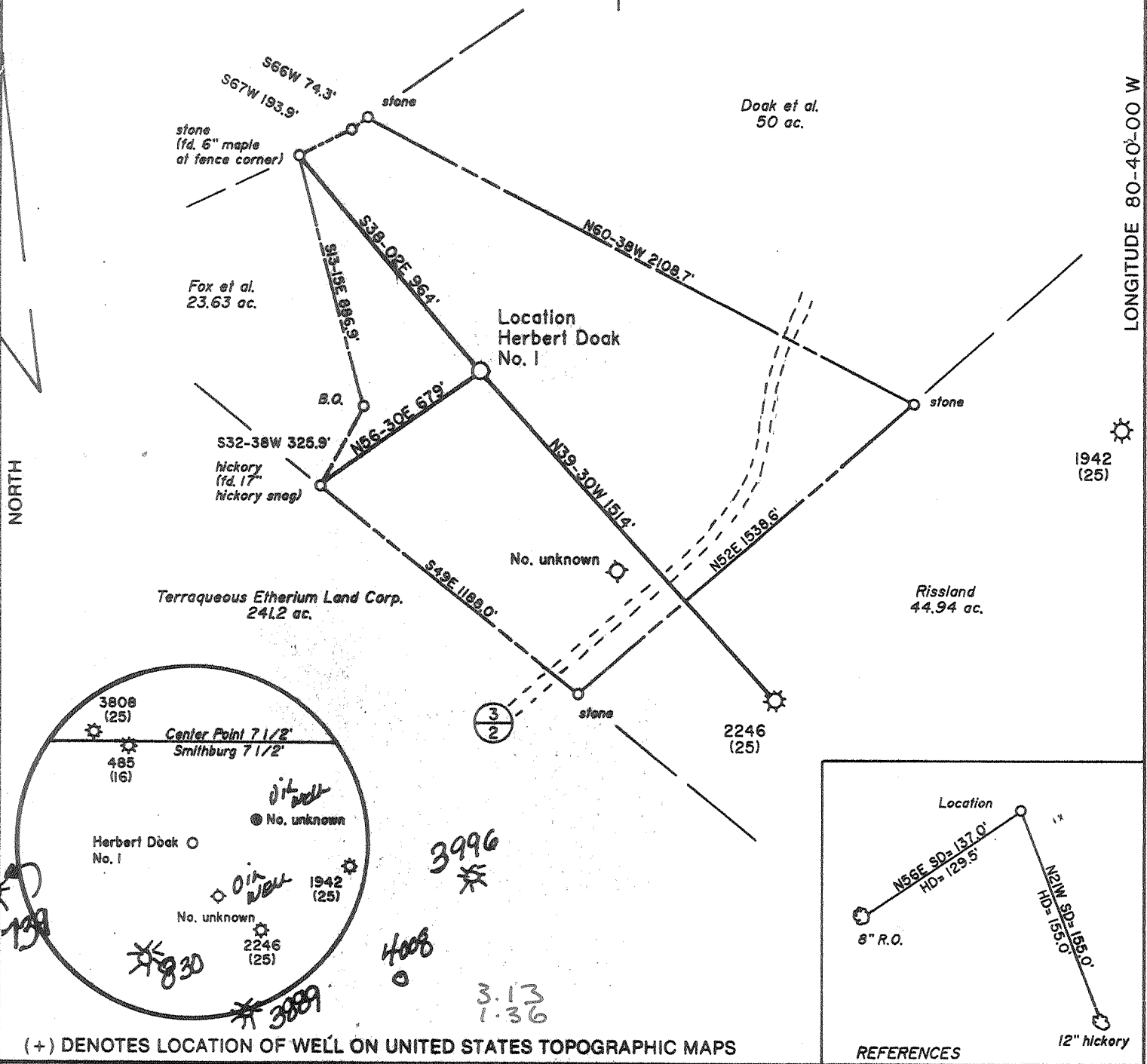
*P.255
P.360*

7 1/2'

LONGITUDE 80-00-40 W

1942 (25)

NORTH

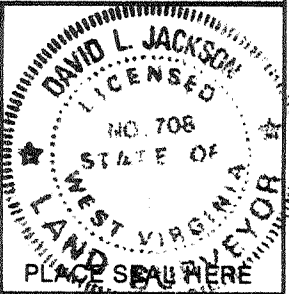


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

REFERENCES

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Road junction 6.950'
East 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 L. Jackson
 R.P.E. _____ L.L.S. 708



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

DATE June 25, 19 93
 OPERATOR'S WELL NO. Herbert Doak No. 1
 API WELL NO. _____

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

LOCATION: ELEVATION 1230 WATER SHED Brush Run
 DISTRICT Grant 3 COUNTY Doddridge
 QUADRANGLE Smithburg 7 1/2' Centerpond

SURFACE OWNER David E. Johnson ACREAGE 54.63
 OIL & GAS ROYALTY OWNER Herbert L. Doak et al. LEASE ACREAGE 54.63
 LEASE NO. 474100

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

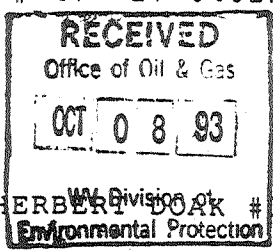
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

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

JUL 2 1993

COUNTY NAME PERMIT

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



Well Operator's Report of Well Work

Farm name: JOHNSON, DAVID E. Operator Well No.: HERBERT DOAK #1

LOCATION: Elevation: 1,230.00 Quadrangle: SMITHBURG

District: GRANT County: DODDRIDGE
Latitude: 1375 Feet South of 39 Deg. 22Min. 30 Sec.
Longitude 7250 Feet West of 80 Deg. 40 Min. Sec.

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

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD
Permit Issued: 06/30/93
Well work Commenced: 09/14/93
Well work Completed: 09/22/93
Verbal Plugging
Permission granted on: _____
Rotary Cable _____ Rig
Total Depth (feet) 5444'
Fresh water depths (ft) _____
76; 970
Salt water depths (ft) _____
n/a
Is coal being mined in area (Y/N)? N
Coal Depths (ft): n/a

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	150'	150'	88 sks
8 5/8"	1875'	1875'	455 sks
4 1/2"	5403'	5403'	570 sks

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 5305-5308
Gas: Initial open flow 220 MCF/d Oil: Initial open flow 0 Bbl/
Final open flow 338 MCF/d Final open flow 0 Bbl/
Time of open flow between initial and final tests 4 Hour
Static rock Pressure 1500 psig (surface pressure) after 72 Hour

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

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WEL 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: October 5, 1993

JAN 1 - 1994

HERBERT DOAK #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
ST	Benson	13(5305' - 5308')	50	340	500	65

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	1976	1/2" water @ 76'
Maxton	1976	2048	1/2" water @ 970'
sand, shale	2048	2183	
Big Lime	2183	2287	gas chk @ 2132' No Show
sand, shale	2287	2291	
Big Injun	2291	2367	gas chk @2202' 2/10 thru 1"/water
sand, shale	2367	2482	
Veir	2482	2408 - 2508?	
sand, shale	2408	2722	
Berea	2722	2773	gas chk @2328' 2/10 thru 1"/water
sand, shale	2773	2929	
Gordon	2929	2993	
sand, shale	2993	3248	gas chk @ 2454' no show
6th	3248	3292	gas chk @ 2670' no show
sand, shale	3292	3402	gas chk @ 2829' no show
Warren	3402	3510	gas chk @ 3050' no show
sand, shale	3510	3626	
Speechley	3626	4070	gas chk @3427' 3/10 thru 2"/water
sand, shale	4070	4200	gas chk @3740' 2/10 thru 2"/water
Balltown	4200	4495	
sand, shale	4495	4858	gas chk @5119' 3/10 thru 2"/water
Bradford	4858	5000	gas chk @5244' 2/10 thru 2"/water
sand, shale	5000	5036	gas chk @5306' 4/10 thru 2"/water
Riley	5036	5229	
sand, shale	5229	5291	gas chk @5442' 4/10 thru 2"/water
Benson	5291	5332	gas chk @collars 2/10 thru 2"/water
sand, shale		5442	Drillers TD
		5444	Logger TD

17537

RECEIVED
WV Division of
Environmental Protection

JUN 30 1993

Well # 47 017-1022
Issued 6/30/93
Page of

Expires 6/30/95

FORM WW-2B

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

- 1) Well Operator: Petroleum Development Corporation 38200 (3) 610
- 2) Operator's Well Number: Herbert Doak #1 3) Elevation: 1230'
- 4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production X / Underground Storage /
Deep / Shallow X /
- 5) Proposed Target Formation(s): Benson Sand
- 6) Proposed Total Depth: 5500 feet
- 7) Approximate fresh water strata depths: 35', 130', 240', 375', 605'
- 8) Approximate salt water depths: 1385', 1470', 1575', 1825'
- 9) Approximate coal seam depths: 250', 420', 725', 975'
- 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	Fill-up (cu. ft.)
Conductor	11 3/4"	H-40	42#	150/30	150' / -	Surface
Fresh Water						38 CSR 18-11.3
Coal						38 CSR 18-11.2.2
Intermediate	8 5/8"	H-40	20/23#	1850/1050	1850'/1050	Surface
Production	4 1/2"	J-55	10.5#	5500'	5500'	450 sks
Tubing						38 CSR 18-11.1
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

04930
Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent

RECEIVED
WV Division of
Environmental Protection

JUN 30 93

Permitting
Office of Oil & Gas

- 1) Date: June 28, 1993
- 2) Operator's well number
Herbert Doak #1
- 3) API Well No: 47 - 017 - 4022
State - County - Permit

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 David E. Johnson
Address CP Star Rt., Box 64-R
West Union, WV 26456
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name _____
Address _____
 - (b) Coal Owner(s) with Declaration
Name _____
Address _____
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector Mike Underwood
Address Rt. 2, Box 135
Salem, WV 26426
Telephone (304)-782-1043

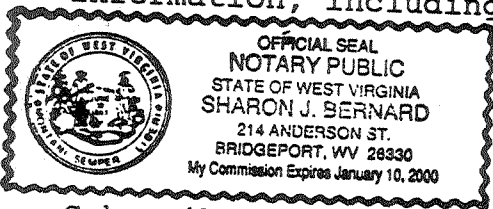
TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR xxx 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: ET Shoun
Its: _____ Geologist
Address P O Box 26
Bridgeport, WV 26330
Telephone 304-842-6256



Subscribed and sworn before me this 29th day of June, 1993

My commission expires January 10, 2000 Notary Public