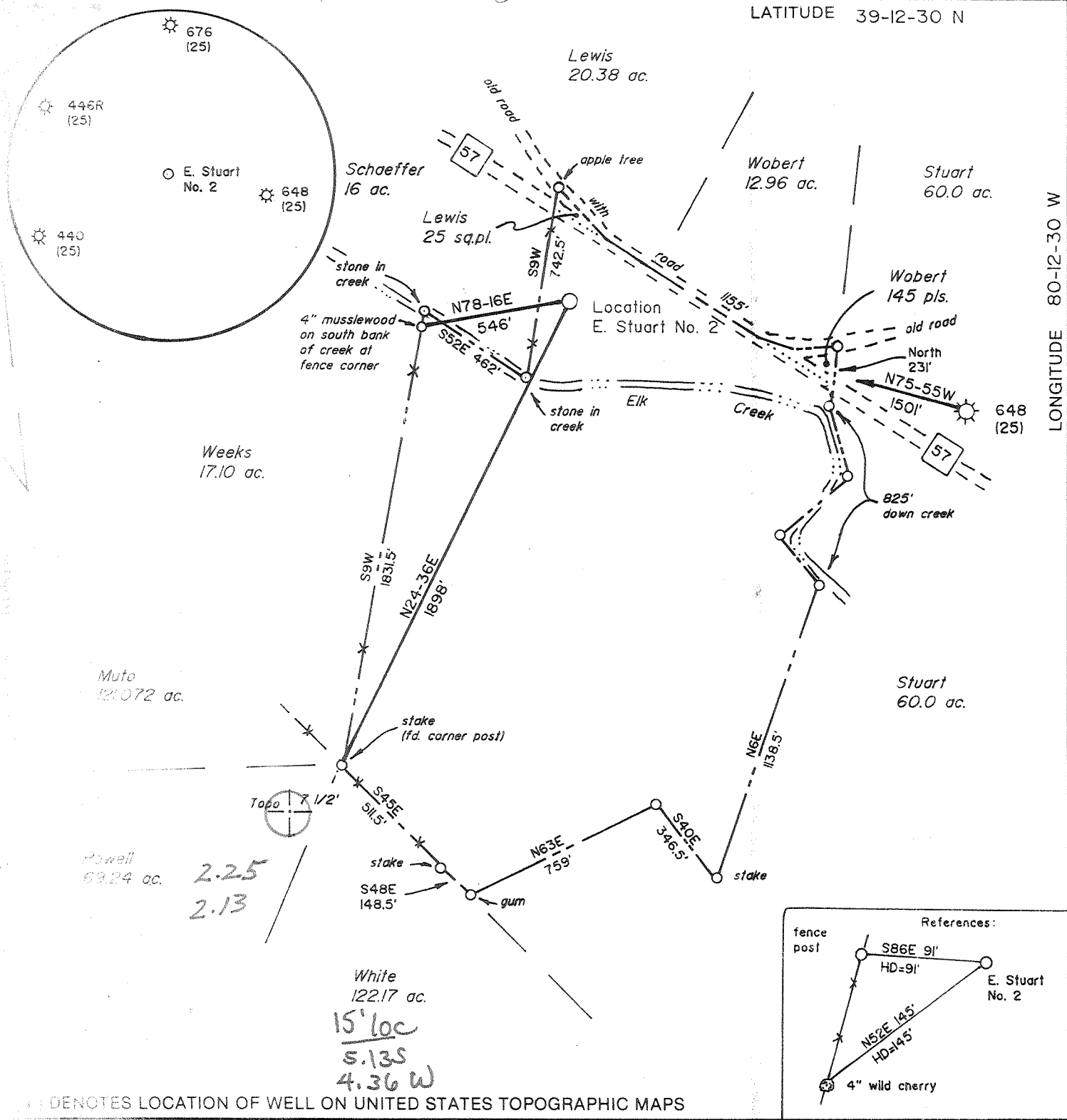


11,300'

LATITUDE 39-12-30 N

LONGITUDE 80-12-30 W

11,925'



★ 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 BM 1020 3900'
East of location: elev. 1020'

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) Jeffrey H. Adams
 R.P.E. _____ L.L.S. 791

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE February 22, 19 90
 OPERATOR'S WELL NO. E. Stuart No. 2
 API WELL NO. _____

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X
 LOCATION: ELEVATION 1020' WATERSHED Elk Creek
 DISTRICT Elk 5 COUNTY Harrison
 QUADRANGLE Brownnton 7 1/2' Philippi NW
 SURFACE OWNER Edward L. Stuart ACREAGE 67 ac.
 OIL & GAS ROYALTY OWNER Edward L. Stuart LEASE ACREAGE 67 ac.
 LEASE NO. 432100

PROPOSED WORK: DRILL X 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 Steven Williams
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

687
 6-6 Elk Creek (Overfield) (155)

MAR 05 1990

COUNTY NAME
 PERMIT

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: STUART, EDWARD Operator Well No.: ED STUART #2

LOCATION: Elevation: 1020.00 Quadrangle: BROWNTON

District: ELK County: HARRISON
Latitude: 11925 Feet South of 39 Deg. 12Min. 30 Sec.
Longitude 11300 Feet West of 80 Deg. 12 Min. 30 Sec.

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

Agent: ERIC R. STEARNS

Inspector: STEVE CASEY
Permit Issued: 02/27/90
Well work Commenced: 03/05/90
Well work Completed: 03/10/90
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 4382'
Fresh water depths (ft) _____
110; 345
Salt water depths (ft) _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	25'	25'	
8 5/8"	1012'	1012'	240 sks
4 1/2"	4330'	4330'	377 sks

Is coal being mined in area (Y/N)? n
Coal Depths (ft): 237-239; 344-348; 565-570

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 4427.5-29
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/c
Final open flow 353 MCF/d Final open flow _____ Bbl/c
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 1100 psig (surface pressure) after 72 Hours

Second producing formation Balltown Pay zone depth (ft) 2842.5-346
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/c
Final open flow co-mingled MCF/d Final open flow _____ Bbl/c
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

Third producing formation Fifth/Fourth Sand Pay zone depth (ft) 2200-2258

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE 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 11, 1990

APR 20 1990

033-3698

Stuart #2

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Benson	9(4227.5-4229.5)	100	450	500	69.2
2ND	Balltown	10(2842.5-3461)	100	450	750	66.6
3RD	Fifth/Fourth	9(2200-2258)	100	450	604	69.2

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	1390	3/4" stream H2O @ 110'
Big Lime	1390	1440	1" stream H2O @ 345'
Big Injun	1440	1525	Coal 237-239, 344-348
sand, shale	1525	1715	Coal 565-570
Gantz	1715	1725	gas chk @ 1566' 6/10-1" H2O
sand, shale	1725	1740	gas chk @ 1846' 2/10-1" H2O
50 ft	1740	1770	
sand, shale	1770	1830	
30 ft	1830	1915	
sand, shale	1915	1942	
Gordon	1942	2000	gas chk @ 2033' 2/10-1" H2O
sand, shale	2000	2195	
4th	2195	2147	
sand, shale	2147	2175	gas chk @ 2124' 2/10-1" H2O
4th A	2175	2209	
sand, shale	2209	2254	
5th	2254	2287	
sand, shale	2287	2313	
Bayard	2313	2322	
sand, shale	2322	2684	gas chk @ 2248' 2/10-1" H2O
Speechley	2684	3010	gas chk @ 2432' 2/10-1" H2O
sand, shale	3010	3053	
Balltown	3053	3358	
sand, shale	3358	3402	
Bradford	3402	3528	gas chk @ 2858' 12/10-1" H2O
sand, shale	3528	3989	
Riley	3989	4091	gas chk @ 3116' 12/10-1" H2O
sand, shale	4091	4202	gas chk @ 3703' 12/10-1" H2O
Benson	4202	4262	gas chk @ 4104' 16/10-1" H2O
sand, shale	4262	4385	gas chk @ 4260' 12/10-1" H2O
	4385	4385	Driller TD 10/10-1" H2O
			gas chk @ DC 10/10-1" H2O
			Logger TD
		4382	



033 3698

Issued 2/27/90

Expires 2/27/92

Page ___ of ___

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 (S) 266
- 2) Operator's Well Number: Ed Stuart #2 3) Elevation: 1020'
- 4) Well type: (a) Oil ___/ or Gas XX/
(b) If Gas: Production XX/ Underground Storage ___/
Deep ___/ Shallow XX/
435
- 5) Proposed Target Formation(s): Benson
- 6) Proposed Total Depth: 5000 feet
- 7) Approximate fresh water strata depths: 36, 558, 720, 750
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: 146, 557
- 10) Does land contain coal seams tributary to active mine? Yes ___/ No XX/
- 11) Proposed Well Work:
- 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	30	-----	-----
Fresh Water						
Coal						
Intermediate	8 5/8	H-40	20	1000	1000	
Production	4 1/2	J-55	10.5	5000	5000	450 sks
Tubing						
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

RECEIVED
FEB 27 1991

For Division of Oil and Gas Use Only

DIVISION OF OIL AND GAS
DEPARTMENT OF ENERGY

0854910
4

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

FEB 27 1990
DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: February 23, 1990
Operator's well number
Edward Stuart #2
API Well No: 47 - 033 - 3698
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 Edward Stuart
Address 207 Davisson Street
Bridgeport, WV 26330
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Stephen Casey #2
Address Rt. 2, Box 232-D
Jane Lew, WV 26378
Telephone (304)- 745-4888

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name Same as Surface
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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:

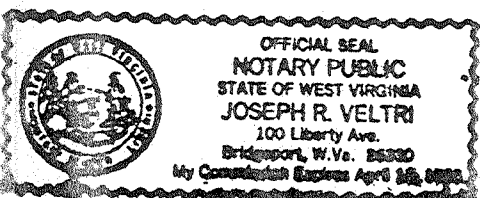
- _____ Personal Service (Affidavit attached)
- XX Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

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 26th day of February, 1990

Joseph R. Veltri Notary Public
My commission expires April 13, 1995