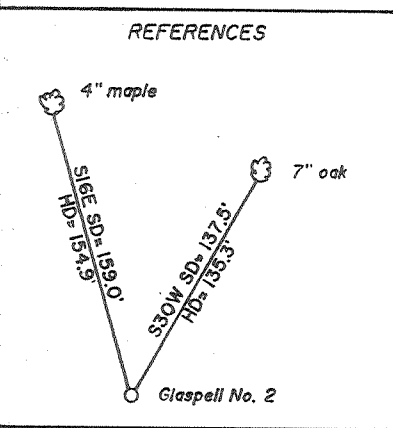
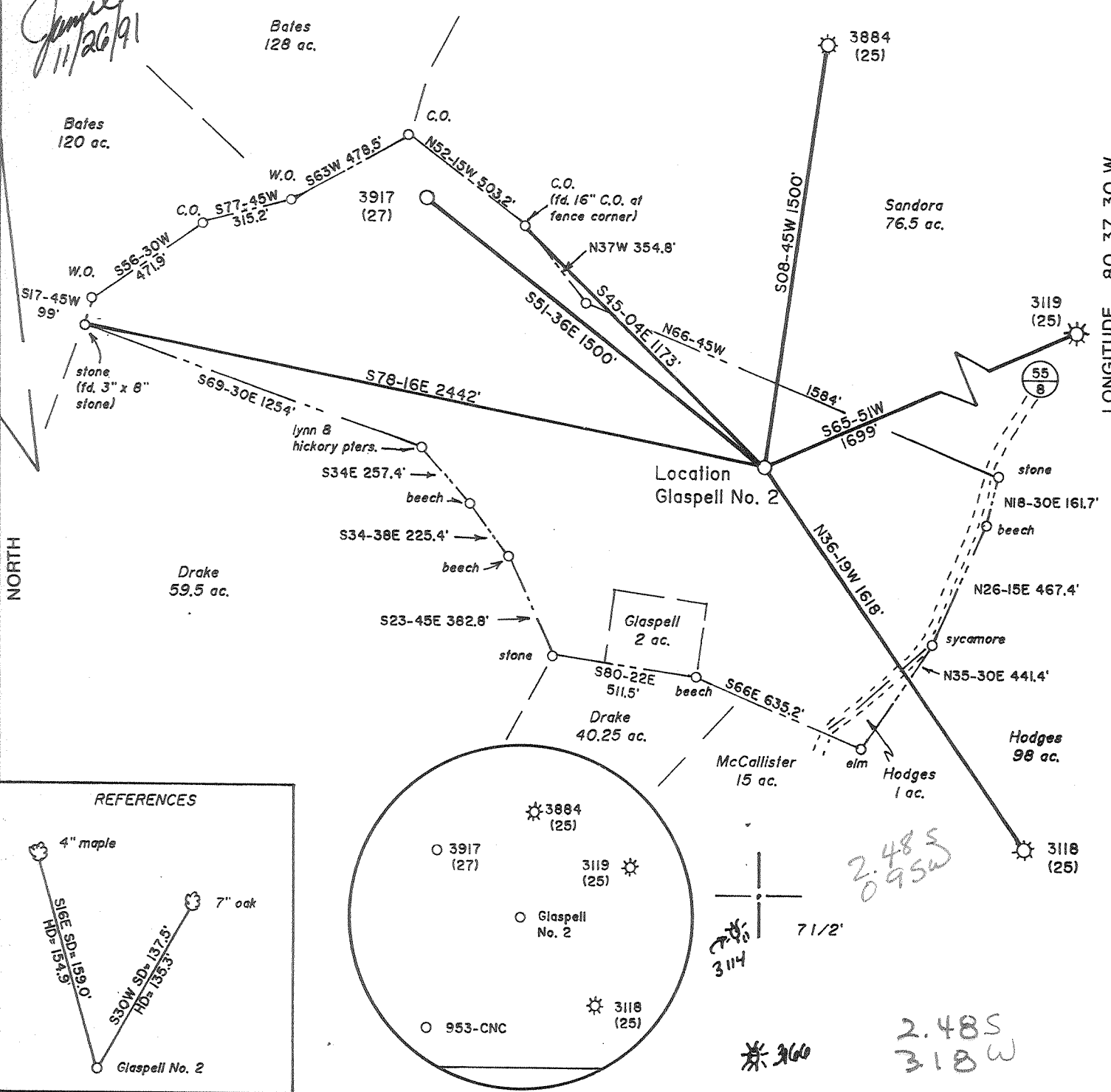


Janice
11/26/91



(+) 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 Spot elev. 2,300' SW of Location: Elevation 1345

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

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 DIVISION OF OIL AND GAS



DATE October 31, 19 91
 OPERATOR'S WELL NO. Glaspell No. 2
 API WELL NO. _____

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1167 WATER SHED Little Battle Run
 DISTRICT McClellan 5 COUNTY Doddridge
 QUADRANGLE Center Point 7 1/2' d15 c
 SURFACE OWNER Ingrid Arrigo - Grenon ACREAGE 63.25
 OIL & GAS ROYALTY OWNER Arby E. Glaspell et al LEASE ACREAGE 64.25
 LEASE NO. 451500

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

6-6 Smithton-Flint-Sedalia (099)

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

Reviewed TMB
Recorded _____

Well Operator's Report of Well Work

Farm name: GRENON, INGRID ARRIGO Operator Well No.: GLASPELL #2

LOCATION: Elevation: 1167.00 Quadrangle: CENTER POINT

District: MCCLELLAN County: DODDRIDGE
Latitude: 13025 Feet South of 39 Deg. 25Min. 0 Sec.
Longitude 5075 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: 12/02/91
Well work Commenced: 01/31/92
Well work Completed: 02/10/92
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 5402' 544500
Fresh water depths (ft) _____
650; 770; 1597
Salt water depths (ft) _____
n/a
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 319-326; 545-548

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	43'	43'	
8 5/8"	1060'	1060'	244 sks
4 1/2"	2436'	2436'	100 sks

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth (ft) 2279-2295
Gas: Initial open flow 539 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 730 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 130 psig (surface pressure) after 72 Hours

Second producing formation Keener Pay zone depth (ft) 2187-2231
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.

By: Eric R. Stearns
Date: April 27, 1992

MAY 01 1992

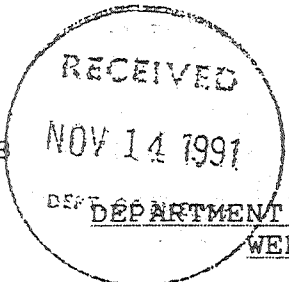
Glaspell #2

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
1ST	Big Injun	14(2279-2295)	0	0	600	0
2ST	Keener	10(2187-2231)	0	0	1000	0

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	2070	Hole Damp @ 650'
Little Lime	2070	2090	Hole Damp @ 770'
sand, shale	2090	2101	Hole Damp @ 1597'
Big Lime	2101	2150	Coal 319-326;545-548
sand, shale	2150	2153	gas chk @ 2075' No Show
Keener	2153	2198	
sand, shale	2198	2202	gas chk @ 2201' 4/10-2" H2O
Big Injun	2202	2305	
sand, shale	2305	2305	
Squaw	2305	2333	
sand, shale	2333	2903	gas chk @ 2421' 6/10-7"H2O
Gordon	2903	2924	gas chk @ 2483' 4/10-7"H2O
sand, shale	2924	2988	gas chk @ 2764' 4/10-7"H2O
4th	2988	3066	gas chk @ 2860' 28/10-2"Hg
sand, shale	3066	3083	gas chk @ 2954' 28/10-2"Hg
5th	3083	3128	gas chk @ 3049' 20/10-2"Hg
sand, shale	3128	3617	gas chk @ 3328' 28/10-2"Hg
Speechley	3617	4114	gas chk @ 3799' 24/10-2"Hg
sand, shale	4114	4180	
Balltown	4180	4635	gas chk @ 4300' 24/10-2"H2O
sand, shale	4635	4748	
Bradford	4748	4844	
sand, shale	4844	5005	gas chk @ 4899' 24/10-2"H2O
Riley	5005	5193	gas chk @ 4991' 24/10-2"H2O
sand, shale	5193	5248	gas chk @ 5210' 16/10-2"H2O
Benson	5248	5290	
sand, shale	5290	5425	gas chk @ 5300' 18/10-2"H2O
	5425	5425	Driller TD 12/10-2"Hg
		5402	Logger TD

Plugged back Benson @ 2850'. Done under the original permit as continuation of the drilling process.



017-3932
Issued 12/02/91
Expires 12/02/93

FORM WW-2B

Page ___ of ___

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

- 1) Well Operator: Petroleum Development Corporation ⁶⁸⁷ 38,200 (5) 286
- 2) Operator's Well Number: Glaspell #2 3) Elevation: 1167'
- 4) Well type: (a) Oil ___ / or Gas X /
(b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow X /
- 5) Proposed Target Formation(s): Alexander 429
- 6) Proposed Total Depth: 5500 feet
- 7) Approximate fresh water strata depths: 110, 183, 308, 468, 910, (1550?)
- 8) Approximate salt water depths: None Reported
- 9) Approximate coal seam depths: 310, 750, 1450
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: Drill & stimulate new well
- 12)

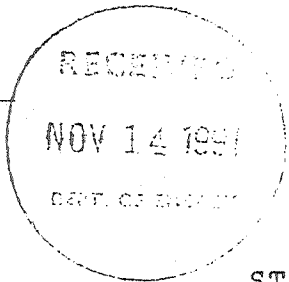
CASING AND TUBING PROGRAM

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	40	30/180	30/180	surface
Fresh Water				↑ ↓	↑ ↓	<i>30CSR18 11.3</i>
Coal				↑ ↓	↑ ↓	<i>O.K.M.U.</i>
Intermediate	8 5/8	H-42	20/23#	1050/1800	1050/1800	surface
Production	4 1/2	J-55	10.5	5500	5500	<i>30CSR18 11.3</i> 400 SKS
Tubing						
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 Agent
 (Type)



- 1) Date: November 8, 1991
- 2) Operator's well number
Glaspell #2
- 3) API Well No: 47 - 017 - 3932
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 Ingrid Arrigo-Grenon
Address 38 Summer Street
Franklin, MA 02038
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name _____
Address _____
 - (b) Coal Owner(s) with Declaration
Name No declaration of record
Address _____
 - (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector Mike Underwood
Address Rt. 2, Box 135
Salem, WV 26426
Telephone (304)- _____

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

SPECIAL SERVICE
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JERRY ALAN STINE
100 B...

Subscribed and sworn before me this 8th day of November, 1991

My commission expires March 1, 1992 [Signature] Notary Public