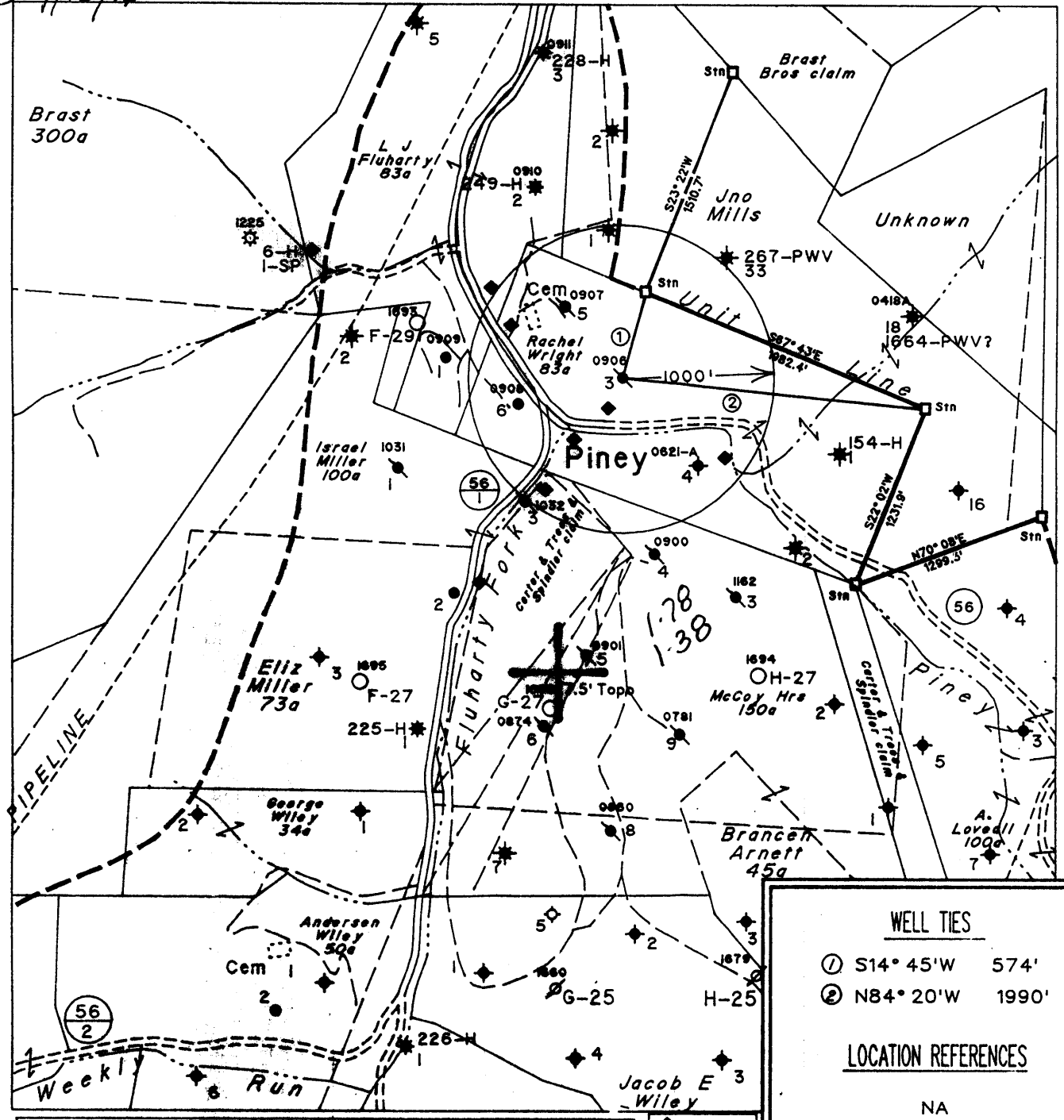


4/16/96



WELL TIES

- ① S14° 45' W 574'
- ② N84° 20' W 1990'

LOCATION REFERENCES

NA

Note: All Known Water Supply Sources Located Within 1000' Of Proposed Well Are Shown

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

◆ Denotes a Water Supply Source

FILE NO. 1816

MAP NO. N57 N 5 S E W 5

SCALE 1" = 1000'

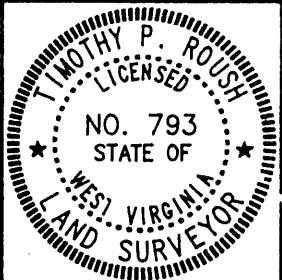
MINIMUM DEGREE OF ACCURACY 1 in 200

PROVEN SOURCE OF ELEVATION USGS BM - 902

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 MINES.

(SIGNED) *Timothy P. Roush*

TIMOTHY P. ROUSH PS 793



STATE OF WEST VIRGINIA

DIVISION OF ENERGY

OIL AND GAS SECTION



DATE April 8, 19 96

FARM Rachael Wright NO. 3

API WELL NO. 47-103-0906-5

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION  WASTE DISPOSAL \_\_\_

(IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ S. J. \_\_\_

LOCATION: ELEVATION 854' WATERSHED Piney Fork

DISTRICT Green COUNTY Metzel

QUADRANGLE Pine Grove

SURFACE OWNER Sanford J. Haught ACREAGE 66 Ac.

OIL & GAS ROYALTY OWNER Pennzoil Products Co. LEASE ACREAGE 100 Ac.

LEASE NO. 25942-50

PROPOSED WORK: DRILL \_\_\_ CONVERT  DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) 8-0 93

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

TARGET FORMATION Gordon ESTIMATED DEPTH 2997'

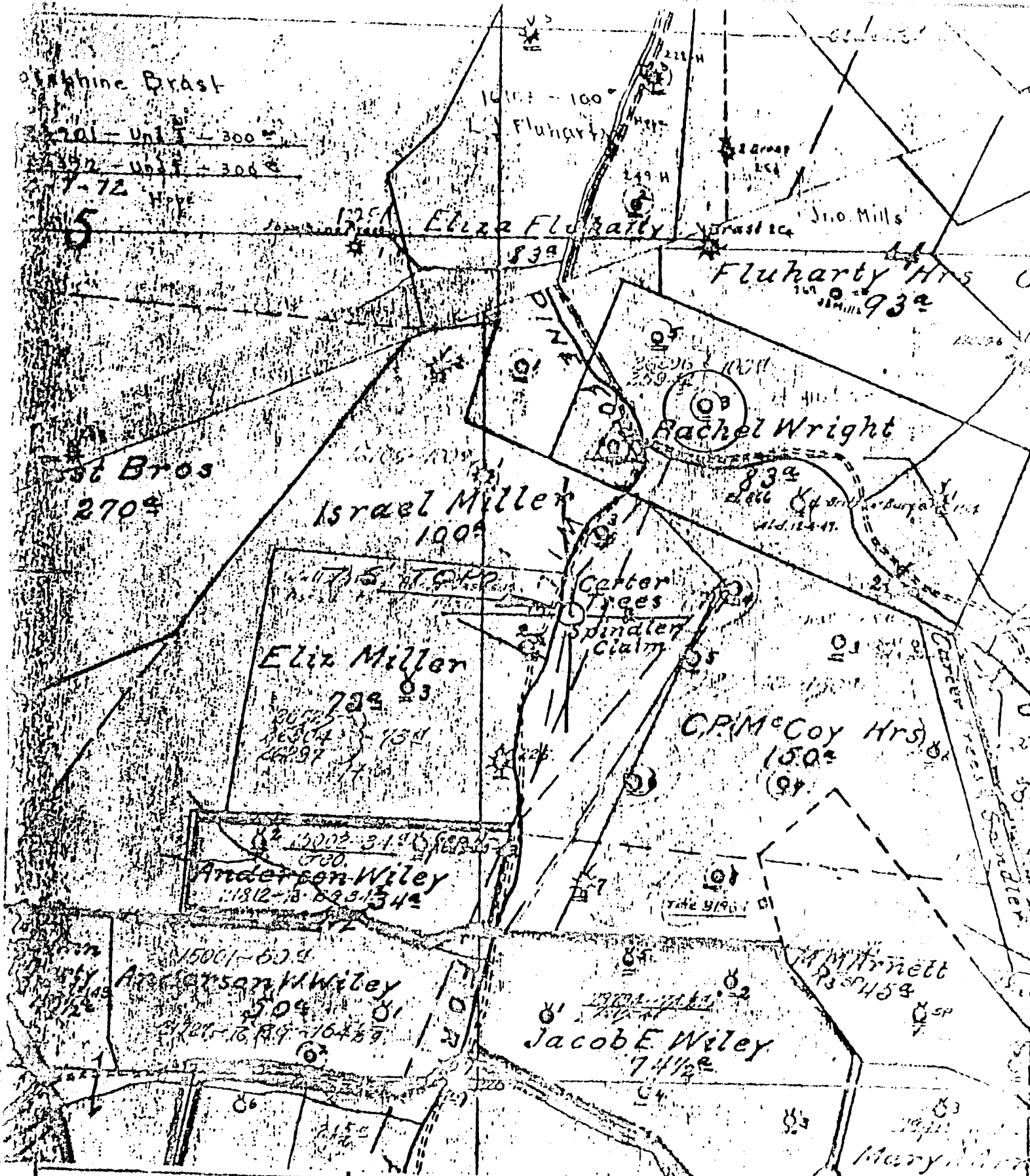
WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT Philip S. Ondrusek

ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519

Vienna, W.Va. 26105 4670 ADDRESS P. O. Box 5519

Vienna, W.Va. 26105

MAY 1 0 1996



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



DATE 1-4-19  
 OPERATOR'S WELL NO. 3  
 API WELL NO. 47-103-0906  
 STATE COUNTY PERMIT

FORM IV-6  
 (8-78)  
 N57 N5 W 9

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS \_\_\_\_\_ LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS", PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X \_\_\_\_\_  
 LOCATION: ELEVATION NA WATER SHED PINEY FORK  
 DISTRICT GREENE COUNTY WETZEL  
 QUADRANGLE PINE GROVE 7.5'  
 SURFACE OWNER \_\_\_\_\_ ACREAGE \_\_\_\_\_  
 OIL & GAS ROYALTY OWNER \_\_\_\_\_ LEASE NO. \_\_\_\_\_ LEASE ACREAGE \_\_\_\_\_  
 PROPOSED WORK: DRILL \_\_\_\_\_ CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR  
 STIMULATE \_\_\_\_\_ PLUS OFF OLD FORMATION \_\_\_\_\_ PERFORATE NEW  
 FORMATION \_\_\_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUS AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUS \_\_\_\_\_  
 TARGET FORMATION \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_  
 WELL OPERATOR Pennzoil Company DESIGNATED AGENT James A. ...  
 ADDRESS P. O. Box 1588 ADDRESS P. O. Box 1588  
Parkersburg, WV 26101 Parkersburg, WV 26101

RACHEL WRIGHT - 3



Latitude

Longitude

1.76s  
1.38w

Topo Location

7.5' Loc. \_\_\_\_\_ 15' Loc. \_\_\_\_\_  
(calc.) \_\_\_\_\_

#240 MTW Co Rept 1909

Company South Penn  
Farm Rachael Wright #3  
15' Quad \_\_\_\_\_  
(sec.)  
7.5' Quad Pine Grove  
District Green

WELL LOCATION PLAT

County 103 Permit 70498  
103 906

FILED  
Environmental  
JAN 2 1997  
Permitting  
Office of the State

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

Well Operator's Report of Well Work

Farm name: Haught, Sanford Joe

Operator Well No.: Rachael Wright #3

LOCATION: Elevation: 854.00

Quadrangle: Pine Grove

District: Green

County: Wetzel

Latitude: 9,300 Feet south of

39 Deg 32 Min 30 Sec.

Longitude: 7,300 Feet west of

80 Deg 40 Min 00 Sec.

Company: PENNZOIL PRODUCTS COMPANY  
P.O. BOX 5519  
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: Randal Mick

Permit Issued: 5/7/96

Well work Commenced: 9/9/96

Well work Completed: 11/19/96

Verbal plugging

permission granted on:

Rotary Cable  Rig

Total Depth (feet) 2697'

Fresh water depths (ft) NA

Salt water depths (ft) NA

Is coal being mined in area (Y/N) N

Coal Depths (ft): NA

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
6 5/8"	1911.00'	1911.00'	Existing Casing
5 3/16"	2123.00'	2123.00'	Existing Casing
3 1/2"	2694.43'	2694.43'	300 Sacks
Note: Pulled 4 x 4.5" Liner			

OPEN FLOW DATA

\*Well was converted to a waterflood injection well. No open-flow data was obtained.

Producing formation Gordon Pay zone depth (ft) 2681-2693

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

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: PENNZOIL PRODUCTS COMPANY  
By: [Signature]  
Date: 1/3/97

JAN 24 1997

**Treatment :**

Perforations: 2682' - 2686' - 4 holes/ft.(16 holes)  
Treatment: Treated via 3.5" Casing with 300 gals. 15% HCl, 208 bbls.  
Borate cross-linked gelled water and 10,800 lbs. of 20/40 sand.

**Well Log :**

Note: See Original Well Record.

NO. 1

# SOUTH PENN OIL COMPANY—COMPLETION

SERIAL NO. \_\_\_\_\_ FARM Rachel Wright. WELL NO. 3.  
 ELEVATION \_\_\_\_\_ N. 5. E. \_\_\_\_\_ W. 4.  
 LEASE NO. \_\_\_\_\_ ACRES 95.  
 WATERS OF PINEY, COUNTY Wetzel, STATE W. Va.  
 DISTRICT Greene, DRILLING COMMENCED 4/13-1898 COMPLETED 9/17-1898 DEPTH 2697'

SANDS	TOP	BOTTOM	ELEV. TOP	DEPTH	CASING
PGH. COAL <del>CRUSTAL</del>	624'				
Big Injun Sand.	1949'	2099'		10"	390'
Stray Sand	2655'			8 1/2"	1150'
Gordon Sand.	2681'	2693'		6-5/8"	1911'
				5-3/16"	2123'

INITIAL PROD. 10. Bbls. SAND Gordon. DEPTH 2673'

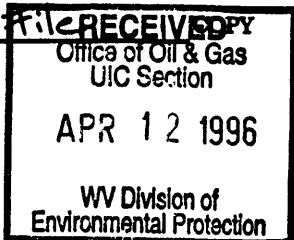
GAS TEST \_\_\_\_\_ QUARTS 30 --- 5/26-1900 --- 70 qts.  
 SHOT 1/24-1899 --- 6/30-1902 --- 120 qts. 5/17-1904 - 60 qts.  
 REMARKS 2/12 -- 1911 -- 150 qts.

REPORTED BY Piney District.

ABANDONED \_\_\_\_\_

103-906

47-103-0904



1) Date April 9, 1996  
 2) Well No. Rachael Wright No.3  
 3) SIC Code \_\_\_\_\_  
 4) API Well No. 47 - 103 - 0906 -LI  
 State County Permit  
 5) UIC Code \_\_\_\_\_

*Issued 05/07/96  
Expires 05/07/98*

STATE OF WEST VIRGINIA  
 NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION

for the  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WELL TYPE: Liquid Injection  Gas Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_

LOCATION: Elevation 854 Watershed Piney Fork  
 District Green County Wetzel Quadrange Pine Grove *598*

WELL OPERATOR: Pennzoil Products Company *4670* 9) DESIGNATED AGENT: Philip S. Ondrusek  
P.O. Box 5519 P.O. Box 5519  
Vienna, WV 26105 *37450* Vienna, WV 26105

10) OIL & GAS INSPECTOR TO BE NOTIFIED:  
 Name Mike Underwood  
 Address Route 2, Box 135  
Salem, WV 26426

11) DRILLING CONTRACTOR:  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_

12)  Convert To Water Injection \_\_\_\_\_ Drill Deeper \_\_\_\_\_ Redrill \_\_\_\_\_ Stimulate   
 Plug Off Old Formation \_\_\_\_\_ Perforate New Formation \_\_\_\_\_ Convert   
 Other Physical Change in Well (specify) \_\_\_\_\_

13) Geological target formation Gordon *419* Depth 2681 Ft. (Top) t 2693 Ft. (Bottom)

14) Estimated depth of completed well (or actual depth of existing well) 2697 Ft.

15) Approximate water strata depths: Fresh NA Ft. Salt NA Ft.

16) Approximate coal seam depths: 624 Ft.

17) Is coal being mined in the area?  Yes  No

18) Virgin reservoir pressure in target formation: 1400 psig. Source Estimated

19) Estimated reservoir fracture pressure: 3500 psig.

20) Maximum proposed injection operations: Volume per hour 25 bbl. Bottom Hole Pressure 2332 psig.

21) Detailed identification of materials to be injected, including additives: Fresh water, produced water, bactericides and other chemicals as needed to maintain water quality and improve oil recovery.

22) Filters (if any): Cartridge filters and/or coal bed filters

23) Specifications for cathodic protection and other corrosion control: \_\_\_\_\_

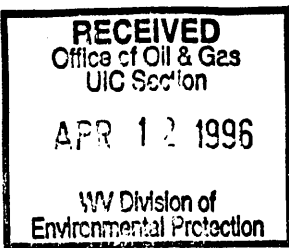
24) CASING AND TUBING PROGRAM:

CASING OR TUBING TYPE	Size	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS	PACKERS
		Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	6 5/8"					1911'	1911'	Existing Casing	
Coal									Sizes
Intermediate									
Production	<del>5 8/16"</del>					<del>2128'</del>	<del>2128'</del>	Existing Casing	Depths Set
Tubing	<u>4 1/2"</u>					<u>2997</u>	<u>2997</u>	<u>Per 38.18.11.</u>	
Liners									Perforations
									Top Bottom

25) APPLICANTS OPERATING RIGHTS were acquired from Rachael Wright et al  
 by Deed \_\_\_\_\_ Lease  Other Contract \_\_\_\_\_ Dated May 18, 1897 of record in the  
Wetzel County Clerk's Office in Lease Book 51 at Page 460

21993





1) Date April 9, 1996  
2) Well No. Rachael Wright No.3  
3) SIC Code \_\_\_\_\_  
4) API Well No. 47 - 103 - 0906 - 41  
State County Permit

**STATE OF WEST VIRGINIA**  
**NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION**  
for the  
**DIVISION OF OIL AND GAS, DEPARTMENT OF ENERGY**

6) SURFACE OWNER(S) OF RECORD TO BE SERVED

(i) Name Santford Joe Haught  
Address H.C. 60, Box 295  
Reader, WV 26167  
(ii) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(iii) Name \_\_\_\_\_  
Address \_\_\_\_\_

7 (i) COAL OPERATOR:

Name N/A  
Address \_\_\_\_\_

7 (ii) COAL OWNER WITH DECLARATION ON RECORD:

Name N/A  
Address \_\_\_\_\_

7(iii) COAL LESSEE WITH DECLARATION ON RECORD:

Name N/A  
Address \_\_\_\_\_

TO

- (1)  Convert To Water Injection sets out the parties involved in the drilling or other work, and  
(2) The plat (surveyor's map) showing the well location on Form WW-6; and  
(3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

The date proposed for the first injection or waste disposal is \_\_\_\_\_

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM WW-3(B)) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22B of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Director of the Division of Oil and Gas, West Virginia Department of Energy, with respect to a well at the location described on the attached Application and depicted on attached Form WW-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Director.

The person signing this document shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document 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."

Pennzoil Products Company  
Well Operator  
By   
Its Supervisor, Surveying/Mapping  
Telephone (304) 422-6565

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-103-0906-LI

May 7th. 19 96  
Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and (if required) construction and reclamation plan, subject to any modifications and conditions specified below.

Permit expires 5-7-98 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: ✓	Plat: <i>AS</i>	Casing: <i>WJ</i>	Fee: CK#
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*0301344147* *Michael J. Jones*

NOTE: Keep one copy of this permit posted at the drilling location.

CHIEF, OFFICE OF OIL AND GAS

PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

OFFICE USE ONLY

This part of Form IV-3(b) is to record the dates of certain occurrences and any follow-up inspections.

	Date	Follow-up inspection(s)	Date(s)
Application received			
Well work started		" "	
Total depth reached		" "	
Well Record received		" "	
Reclamation completed		" "	
OTHER INSPECTIONS			

Reason: \_\_\_\_\_

Reason: \_\_\_\_\_