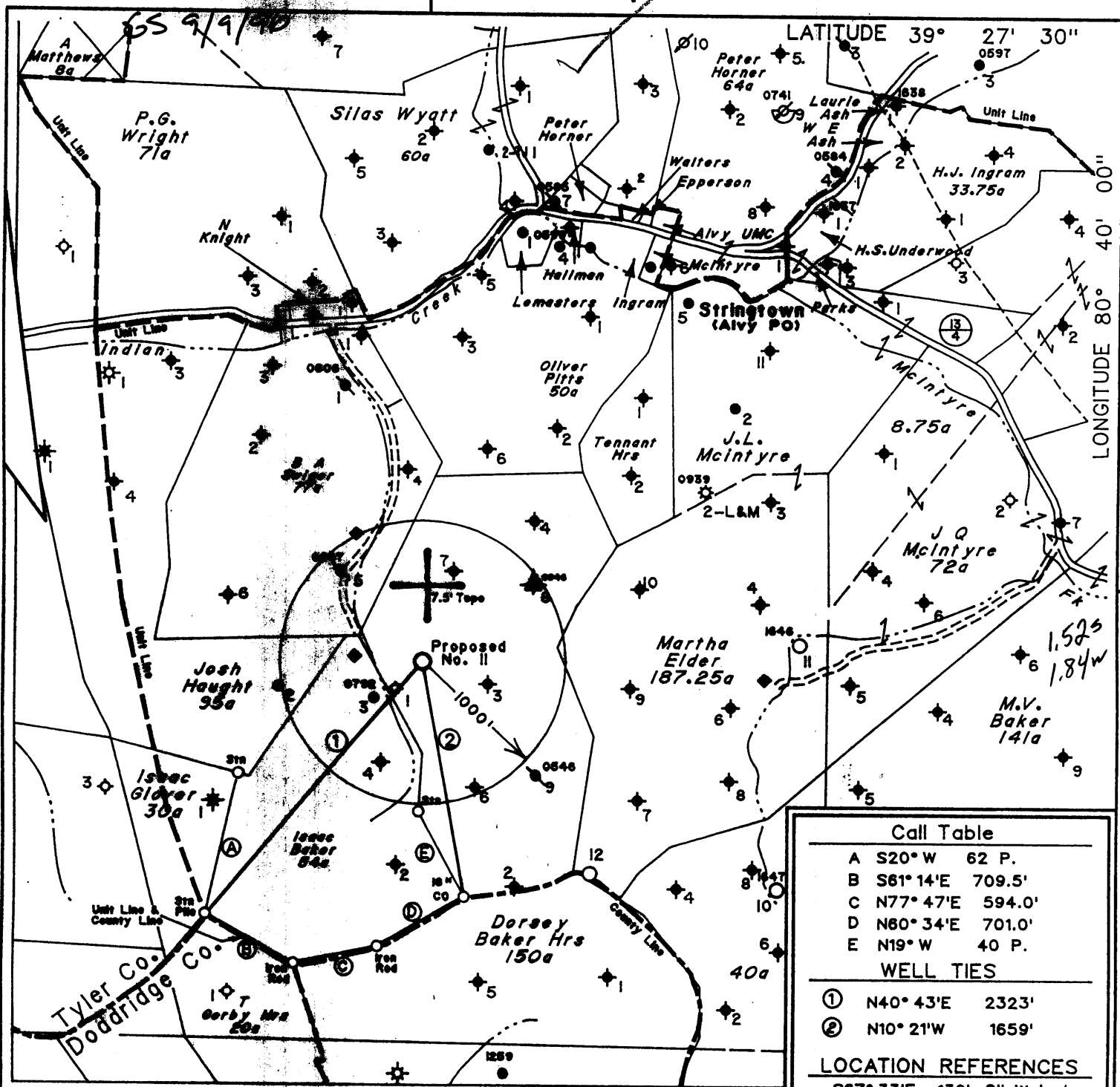


GS 9/9/90



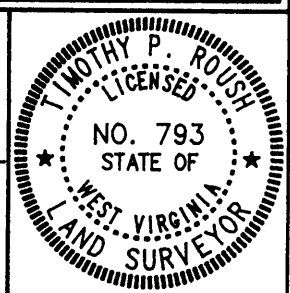
Call Table	
A	S20° W 62 P.
B	S61° 14' E 709.5'
C	N77° 47' E 594.0'
D	N60° 34' E 701.0'
E	N19° W 40 P.
WELL TIES	
①	N40° 43' E 2323'
②	N10° 21' W 1659'
LOCATION REFERENCES	
S67° 33' E	139' 8" Walnut
S35° 32' E	155' 3" Beech
N43° 35' E	135' 6" Maple

Note: All known water supply sources located within 1000' of proposed well are shown. (H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 42  
 MAP NO. N47 N S 1 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 August 12, 19 96  
 FARM Dorsey Baker Heirs NO. 11  
 API WELL NO. 47-095-01659-5

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1030' WATERSHED Indian Creek  
 DISTRICT McElroy COUNTY Tyler  
 QUADRANGLE Centerpoint 7.5'  
 SURFACE OWNER Dorsey Baker Est. ACREAGE 139.81 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 150 Ac.  
 LEASE NO. 13130-50  
 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 Carbon ESTIMATED DEPTH 3030'  
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT Philip S. Ondrusek  
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519  
Vienna, W.Va. 26105 Vienna, W.Va. 26105

SEP 13 1996

8-0 95

WR-35

9-Sep-96  
API # 47 -095- 1659

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

Well Operator's Report of Well Work

RECEIVED  
Office of Oil and Gas  
MAR 19 1998  
WV Division of  
Environmental Protection

Farm name: Baker, Dorsey Estate Operator Well No.: D. Baker Hr. #11

LOCATION: Elevation: 1,030.00 Quadrangle: Center Point

District: Mc Elroy County: Tyler  
Latitude: 8,000 Feet south of 39 Deg 27 Min 30 Sec.  
Longitude: 9,750 Feet west of 80 Deg 40 Min 0 Sec.

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

Agent: PHILIP S. ONDRUSEK

Inspector: Mike Underwood

Permit Issued: 9/9/96  
Well work Commenced: 12/10/96  
Well work Completed: 1/2/97

Verbal plugging permission granted on: \_\_\_\_\_

Rotary  Cable \_\_\_\_\_ Rig \_\_\_\_\_

Total Depth (feet) 3020'

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.
8-5/8"	305'	305'	170 Sacks
4 1/2"	2976.10'	2976.10'	275 Sacks

OPEN FLOW DATA

\*Well was drilled as a waterflood injection well. No open-flow data was obtained

Producing formation Gordon Pay zone depth (ft) 2,898'  
 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: 3/17/98

MAR 13 1998

TYL 1659

**Treatment :**

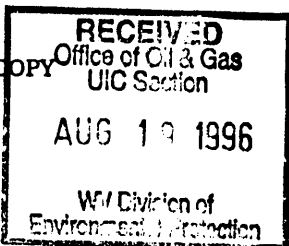
Perforated Gordon sand with 16 holes from 2898'-2902' K.B. Fractured with 300 gals 15% HCL and 184 bbls gelled water and 8,600 lbs. 20/40 sand

**Well Log :**

All depth are relative to K.B.

0	514 Sand and Shale
514	570 sand
570	828 Shale
828	844 sand
844	884 Shale
884	916 sand
916	1332 Shale
1332	1430 sand
1430	1620 Shale
1620	1668 sand
1668	1824 Shale
1824	1856 sand
1856	2056 Shale
2056	2158 Big Lime
2158	2316 Big Injun
2316	2886 Shale
2886	2896 Gordon Stray
2896	2904 Gordon
2904	3020 Shale

19



1) Date August 13, 1996  
 2) Well No. Dorsey Baker Hrs. No.11  
 3) SIC Code  
 4) API Well No. 47 - 095 - 1659-LI  
     State      County      Permit  
 5) UIC Code

*Issued 09/09/96  
 Expires 09/09/98*

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

22561

1) WELL TYPE: Liquid Injection  Gas Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_  
 LOCATION: Elevation 1030 Watershed Indian Creek  
 District McElroy County Tyler Quadrangle \_\_\_\_\_ Centerpoint 286  
 WELL OPERATOR: Pennzoil Products Company 4670 9) DESIGNATED AGENT: Philip S. Ondrusek  
P.O. Box 5519 P.O. Box 5519  
Vienna, WV 26105 Vienna, WV 26105

OIL & GAS INSPECTOR TO BE NOTIFIED: Name Mike Underwood 11) DRILLING CONTRACTOR:  
 Address Route 2, Box 135 Name \_\_\_\_\_  
Salem, WV 26426 Address \_\_\_\_\_

12) PROPOSED WELL WORK: Drill  Drill Deeper \_\_\_\_\_ Redrill \_\_\_\_\_ Stimulate   
 Plug Off Old Formation \_\_\_\_\_ Perforate New Formation \_\_\_\_\_ Convert \_\_\_\_\_  
 Other Physical Change in Well (specify) \_\_\_\_\_

13) Geological target formation Gordon 415 Depth 2890 Ft. (Top) to 2905 Ft. (Bottom)

14) Estimated depth of completed well (or actual depth of existing well) 3030 Ft.

15) Approximate water strata depths: Fresh 210 Ft. Salt 1237 Ft.

16) Approximate coal seam depths: 842 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.

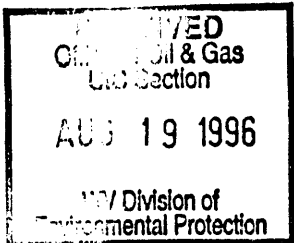
22) Filters (if any): Cartridge filters and/or coal bed filters

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	8 5/8"	L.S.	20#	X		280	280	Cement To	
Coal								Surface	Sizes
Intermediate									
Production	4 1/2"	J-55	10.5#	X		3030	3030	Cement Over	Depths Set
Tubing								Salt Sand	
Liners									Perforations
									Top Bottom

25) APPLICANTS OPERATING RIGHTS were acquired from M.V Baker et al.  
 by Deed \_\_\_\_\_ Lease  Other Contract \_\_\_\_\_ Dated May 4, 1894 of record in the  
Tyler County Clerk's Office in \_\_\_\_\_ Deed \_\_\_\_\_ Book 23 Page 231



1) Date August 13, 1996  
2) Well No. Dorsey Baker Hrs. No.11  
3) SIC Code \_\_\_\_\_  
4) API Well No. 47 - 095 - 1659-21  
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 Dorsey Baker Estate  
Address c/o Earle M. Long  
117 Ellis Ave.  
(ii) Name Elkins, WV 26241  
Address \_\_\_\_\_  
(iii) Name \_\_\_\_\_  
Address \_\_\_\_\_

6 (iv) ADDITIONAL SURFACE OWNERS  
Name \_\_\_\_\_  
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 THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

- (1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which 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 [Signature]  
Its Supervisor, Surveying/Mapping  
Telephone (304) 422-6565

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-095-1659-LI

September 9th 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 9-9-98 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: ✓	Plat: MS	Casing: MS	Fee: CK#
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0301284954

*Michael W. Gair*

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: \_\_\_\_\_