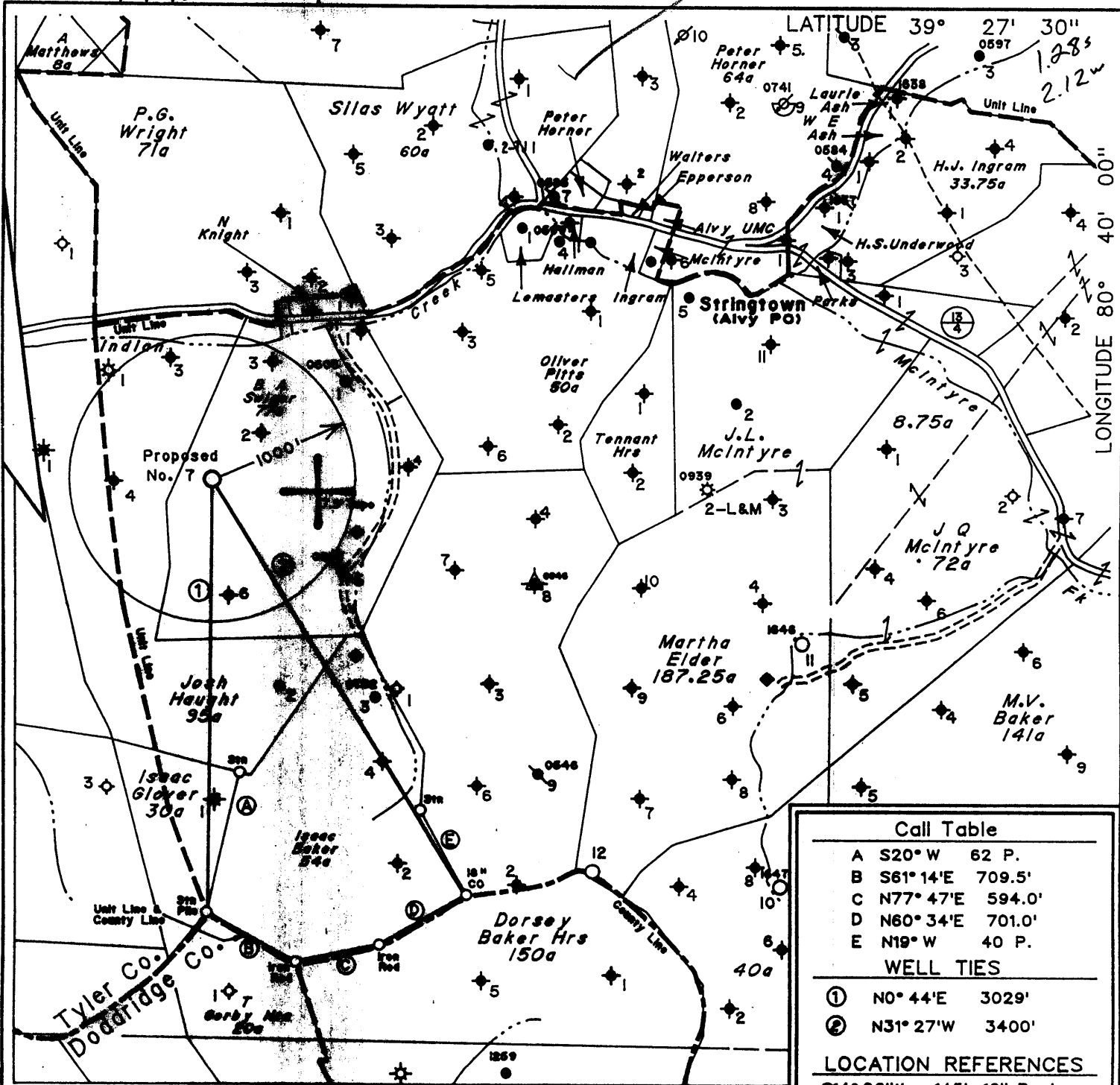


GS 9-9-96

11,200'



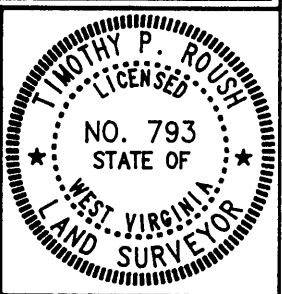
Call Table	
A	S20° W 62 P.
B	S61° 14' E 709.5'
C	N77° 47' E 594.0'
D	N60° 34' E 701.0'
E	N19° W 40 P.
WELL TIES	
①	N0° 44' E 3029'
②	N31° 27' W 3400'
LOCATION REFERENCES	
S14° 08' W	145' 16" Poplar
S45° 34' W	174' 24" Ash Corner
N52° 25' E	117' 2" Dogwood

Note: No known water supply sources are located within 1000' of proposed well.  
 (H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

◆ Denotes a Water Supply Source

FILE NO. 958  
 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 B.A Swiger NO. 7  
 API WELL NO. 47-095-01662-5

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 188' WATERSHED Indian Creek  
 DISTRICT McElroy COUNTY Tyler  
 QUADRANGLE Centerpoint 7.5'  
 SURFACE OWNER Virginia Lemasters ACREAGE 85.1 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 77 Ac.  
 LEASE NO. Fee 883-00  
 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 Gordon ESTIMATED DEPTH 3168'  
 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

FORM IV-6

8-0 95  
SEP 13 1996

WR-35

API # 47 -095- 1662 9-Sep-96

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: Lemasters, Virginia Operator Well No.: B.A. Swiger #7  
LOCATION: Elevation: 1,168' Quadrangle: Center Point  
District: McElroy County: Tyler  
Latitude: 6,700 Feet south of 39 Deg 27 Min 30 Sec.  
Longitude: 11,200 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: 12/13/96  
Well work Completed: 1/16/97  
Verbal plugging permission granted on:  
Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) 3172'  
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"	442'	442'	225 Sacks
4 1/2"	3101.40'	3101.40'	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) 3,018  
 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: 3/16/98

MAR 18 1998

TYL 1662

**Treatment :**

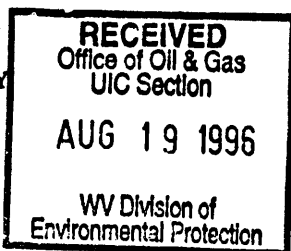
Perforated Gordon sand with 16 holes from 3028'-3032' K.B. Fractured with 300 gals 15% HCL and 193 bbls gelled water and 9,600 lbs. 20/40 sand

**Well Log :**

All depth are relative to K.B.

0	449 Sand and Shale
449	802 Shale
802	846 sand
846	1022 Shale
1022	1056 sand
1056	1490 Shale
1490	1543 sand
1543	1596 Shale
1596	1632 sand
1632	1790 Shale
1790	1848 sand
1848	1943 Shale
1943	1982 sand
1982	2190 Shale
2190	2302 Big Lime
2302	2452 Big Injun
2452	3000 Shale
3000	3018 Gordon Stray
3018	3033 Gordon
3033	3172 Shale

10



1) Date August 13, 1998  
 2) Well No. B.A. Swiger No.7  
 3) SIC Code \_\_\_\_\_  
 4) API Well No. 47 - 095 - 1662-L.I  
                   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

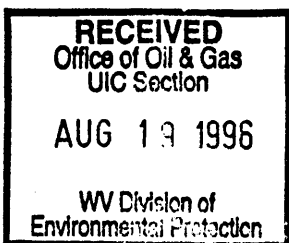
22562

- WELL TYPE:      Liquid Injection X      Gas Injection \_\_\_\_\_      Waste Disposal \_\_\_\_\_
- LOCATION:      Elevation 1168      Watershed Indian Creek      Centerpoint 282  
           District McElroy      County Tyler      Quadrangle \_\_\_\_\_
- WELL OPERATOR: Pennzoil Products Company 4675      9) DESIGNATED AGENT: Philip S. Ondrusek  
                   P.O. Box 5519      P.O. Box 5519  
                   Vienna, WV 26105      Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED:      11) DRILLING CONTRACTOR:  
       Name Mike Underwood      Name \_\_\_\_\_  
       Address Route 2, Box 135      Address \_\_\_\_\_  
       Salem, WV 26426
- 12) PROPOSED WELL WORK:      Drill X      Drill Deeper \_\_\_\_\_      Redrill \_\_\_\_\_      Stimulate X  
                                   Plug Off Old Formation \_\_\_\_\_      Perforate New Formation \_\_\_\_\_      Convert \_\_\_\_\_  
                                   Other Physical Change in Well (specify) \_\_\_\_\_
- 13) Geological target formation Gordon 469      Depth 3028      Ft. (Top) t 3043      Ft. (Bottom) \_\_\_\_\_
- 14) Estimated depth of completed well (or actual depth of existing well) \_\_\_\_\_      3168      Ft.
- 15) Approximate water strata depths:      Fresh 348      Ft.      Salt 1375      Ft.
- 16) Approximate coal seam depths:      980      Ft.
- 17) Is coal being mined in the area?      Yes \_\_\_\_\_      No X
- 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		418	418	Cement To	
Coal								Surface	Sizes
Intermediate									
Production Tubing	4 1/2"	J-55	10.5#	X		3168	3168	Cement Over	Depths Set
Liners								Salt Sand	
									Perforations
									Top      Bottom

- 25) APPLICANTS OPERATING RIGHTS were acquired from Nancy Swiger  
 by Deed \_\_\_\_\_ Lease X Other Contract \_\_\_\_\_ Dated May 10, 1901 of record in the  
Tyler County Clerk's Office in Deed Book 48 Page 22



1) Date August 13, 1996  
2) Well No. B.A. Swiger No.7  
3) SIC Code \_\_\_\_\_  
4) API Well No. 47 - 095 - 1662-01  
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 Virginia Lemasters  
Address Alvy, WV 26322  
  
(ii) Name David W. Lemasters  
Address 220 Fair Ave.  
Middlebourne, WV 26149  
  
(iii) Name Garnett Ferrebee  
Address 115 North 7th Ave.  
Paden City, WV 26159

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 47-095-1662-LI

Sept. 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: MB	Casing: AS	Fee: CK#
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0301284909

*[Signature]*  
CHIEF, OFFICE OF OIL AND GAS

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

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:	_____		