

CALL TABLE		
A.	S 61° 57' E	1386.00'
B.	S 60° 57' E	726.21'
C.	N 74° 06' E	661.41'
D.	N 34° 28' E	627.00'
E.	N 47° 28' E	198.00'
F.	N 3° 28' E	825.00'
G.	S 17° 36' E	3052.50'

Unit Line & Property Line

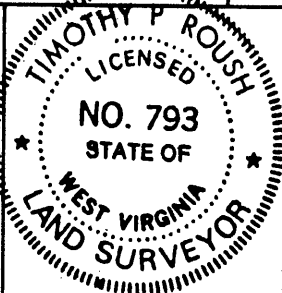
WELL TIES	
①	S 14° 19' E 2678.4'
②	N 39° 40' W 408.4'

LOCATION REFERENCES	
S 46° 10' W	57' 6" Poplar
S 10° 32' W	83' 7" Beech
S 20° 50' E	112' 16" Ch. Oak

FILE NO. 408  
 MAP NO. N47 N 1 S E W 4  
 SCALE 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION F.L. Hoge No.3  
(47-095-0984) = 1307'

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 October 13, 19 92  
L. J. Lemasters WELL M-12  
 API WELL NO. 47-095-1511-41

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION X WASTE DISPOSAL \_\_\_  
 (IF "GAS") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1033' WATERSHED Lefthand Fork  
 DISTRICT McElroy COUNTY Tyler  
 QUADRANGLE Centerpoint  
 SURFACE OWNER Donald L. McCoy ACREAGE P10 71 Ac.  
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 5675 Ac.  
 LEASE NO. 67696-00  
 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 \_\_\_ 8-0 Jacksonville-Stratstown (095)  
 TARGET FORMATION Gordon ESTIMATED DEPTH 3030'  
 WELL OPERATOR Pennzoil Products Company DESIGNATED AGENT James A. Crews  
 ADDRESS P. O. Box 5519 ADDRESS P. O. Box 5519  
Vienna, W. Va. 26105 673 ADDRESS Vienna, W. Va. 26105

SEP 15 93  
Permitting  
Office of Oil & Gas

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

Well Operator's Report of Well Work

Farm name: McCOY, DONALD L. Operator Well No.: LEMASTERS M-12

LOCATION: Elevation: 1033.00 Quadrangle: CENTER POINT

District: MCELROY County: TYLER  
Latitude: 10800 Feet South of 39 Deg. 30Min. 0 Sec.  
Longitude 2150 Feet West of 80 Deg. 40 Min. 0 Sec.

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

Agent: JAMES A. CREWS

Inspector: MIKE UNDERWOOD  
Permit Issued: 11/02/92  
Well work Commenced: 01/04/93  
Well work Completed: 05/01/93

Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable Rig  
Total Depth (feet) 3050'  
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	309'	309'	140 sks.
4-1/2"	3038.75'	3038.75'	300 sks.

OPEN FLOW DATA (Water Injection Well)

Producing formation Gordon Pay zone depth (ft) 2914-2970  
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: Timothy P. Roush, Supervisor - Surveying/Mapping  
Date: September 14, 1993

SEP 14 1993

Treatment

Perforated: Gordon w/20 holes 2948' - 2958'

Treated: w/300 gal. 15% HCL acid, 275 bbls gelled water, 1500# 80/100 sand and 3500# 20/40 sand.

Well Record

Sand and Shale	0 - 497
Shale	497 - 694
Limestone	694 - 745
Shale	745 - 860
Limestone	860 - 870
Shale	870 - 913
Sand and Shale	913 - 1062
Shale	1062 - 1238
Sand	1238 - 1284
Shale	1284 - 1454
Sand	1454 - 1806
Shale	1806 - 1875
Sand	1875 - 1982
Shale	1982 - 2072
Little Lime	2072 - 2086
Shale	2086 - 2114
Big Lime	2114 - 2167
Big Injun	2167 - 2355
Shale	2355 - 2914
Gordon	2914 - 2970
T.D.	3050

DF 411

DFT-419



- 1) Date: October 14, 19 92
- 2) Operator's Well No. L.J. LEMASTERS M-12
- 3) SIC Code \_\_\_\_\_
- 4) API Well NO. 47 - 095 - 1511-S  
State County Permit
- 5) UIC Permit No. \_\_\_\_\_

*Issued 11/02/92*

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

DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

*Expires 11/02/94*

- 6) WELL TYPE: Liquid injection  / Gas injection (not storage) \_\_\_\_\_ / Waste disposal \_\_\_\_\_
- 7) LOCATION: Elevation: 1033' / Watershed: Lefthand Fork 256  
 District: McElroy / County: Tyler / Quadrangle: Centerpoint
- 8) WELL OPERATOR Pennzoil Products Co. 37450  
 Address P.O. Box 5519 4670  
Vienna, WV 26105
- 9) DESIGNATED AGENT J.A. Crews  
 Address P.O. Box 5519  
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) 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 419 Depth 2928 feet(top) to 2943 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3030 ft.
- 15) Approximate water strata depths; Fresh, 233 feet; salt, > 233 feet.
- 16) Approximate coal seam depths: 843
- 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 (BHFP)
- 20) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour: 25 Bottom hole pressure 2470
- 21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water, produced water, bactericides, and other chemicals as necessary to maintain water quality and improve oil recovery.
- 22) FILTERS (IF ANY): Cartridge Filters and/or Coal Bed Filters recovery.
- 23) SPECIFICATIONS FOR CATHODIC PROTECTION AND OTHER CORROSION CONTROL: \_\_\_\_\_

24) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well			
Conductor										Kinds
Fresh water	8 5/8	L.S.	20	X		300'	300'	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) APPLICANT'S OPERATING RIGHTS were acquired from Stringtown Unit #2 Royalty Owners  
 by deed \_\_\_\_\_ / lease \_\_\_\_\_ / other contract  / dated \_\_\_\_\_, 19\_\_\_\_\_, of record in the  
Tyler County Clerk's office in Book 260 at page 22

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

1) Date October 14, 1992  
Operator's  
2) Well No. L.J. LEMASTERS M-12  
3) SIC Code \_\_\_\_\_  
4) API Well No. 47 - 095 -  
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                       | 7 (i) COAL OPERATOR <u>N/A</u><br>Address _____                                 |
| (i) Name <u>Donald L. McCoy</u><br>Address <u>Alvy, WV 26322</u> | 7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:<br>Name _____<br>Address _____ |
| (ii) Name _____<br>Address _____                                 | 7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:<br>Name _____<br>Address _____  |
| (iii) Name _____<br>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 \_\_\_\_\_, 19\_\_\_\_.

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]  
Timothy P. Roush

1st Supervisor - Surveying/Mapping

Telephone (304) 422-6565