

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° 38' E 3052.50'

Unit Line & Property Line

WELL TIES	
①	S44° 37' W 3809'
②	S69° 22' W 4844'

LOCATION REFERENCES

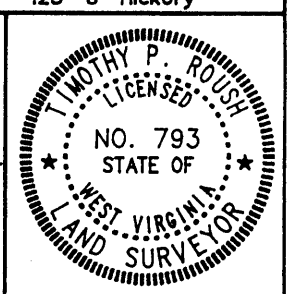
S40° 40' E	135' 6" Dbl. CO
N72° 28' W	128' 6" Chestnut Oak
N22° 14' W	123' 8" Hickory

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

FILE NO. 1802
 MAP NO. N47 N 2 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 May 13, 19 96
 FARM Uriah Stackpole NO. E-11
 API WELL NO. 47-095-01648-5

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1097' WATERSHED Stackpole Run
 DISTRICT McElroy COUNTY Tyler
 QUADRANGLE Centerpoint

SURFACE OWNER Luella Edna Stackpole ACREAGE 9.23 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et.al. LEASE ACREAGE 25 Ac.
 LEASE NO. Fee 2142-00

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 3097'
 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

JUN 14 1996
 6-6 95

RECEIVED
Division of Environmental Protection

JAN 16 1997

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

Well Operator's Report of Well Work

Planning
Office of Oil & Gas

Farm name: Stackpole, Luella Edna

Operator Well No.: U. Stackpole #E-11

LOCATION: Elevation: 1,097.00
District: McElroy
Latitude: 12,050 Feet south of
Longitude: 10,000 Feet west of

Quadrangle: Center Point
County: Tyler
39 Deg 30 Min 0 Sec.
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: 6/10/96

Well work Commenced: 8/29/96

Well work Completed: 10/4/96

Verbal plugging permission granted on:

Rotary X Cable Rig

Total Depth (feet) 3143'

Fresh water depths (ft) NA

Salt water depths (ft) NA

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

Coal Depths (ft): 922-926

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	350'	350'	220 Sacks
4 1/2"	3046'	3046'	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) 2969-2984

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: 1/13/97 JAN 10 1997

Treatment:

Perforations:

2979' - 2983' - 4 holes/ft. (16 holes)

Treatment:

Treated via 4.5" Casing with 300 gals. 15% HCl, 216 bbls.

Borate cross-linked gelled water and 11,500 lbs. of 20/40 sand.

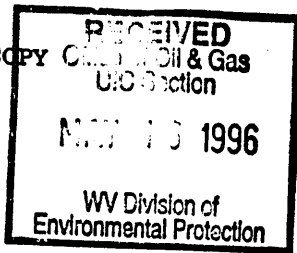
Well Log:

TD - 3143'

Sand & Shale	0	-	272
Sand	272	-	294
Sand & Shale	294	-	730
Sand	730	-	782
Shale	782	-	922
Coal	922	-	926
Shale	926	-	950
Sand	950	-	980
Shale	980	-	1302
Sand	1302	-	1310
Shale	1310	-	1324
Sand	1324	-	1344
Shale	1344	-	1352
Sand	1352	-	1358
Shale	1358	-	1414
Shale	1414	-	1508
Sand	1508	-	1558
Shale	1558	-	1614
Sand	1614	-	1636
Shale	1636	-	1702
Sand	1702	-	1732
Sand & Shale	1732	-	2117
Sand	2117	-	2144
Big Lime	2144	-	2220
Big Injun	2220	-	2390
Shale	2390	-	2944
Gordon Stray	2944	-	2962
Shale	2962	-	2909
Gordon	2909	-	2984
Shale	2984	-	2993
Sand	2993	-	3009
Shale	3009	-	3143

FILE

COPY Oil & Gas
UIC Section



1) Date May 13, 1996
2) Well No. Uriah Stackpole No. E-11
3) SIC Code _____
4) API Well No. 47 - 095 - 1648-LI
State County Permit
5) UIC Code _____

*Issued 06/10/96
Expires 06/10/98*

22138

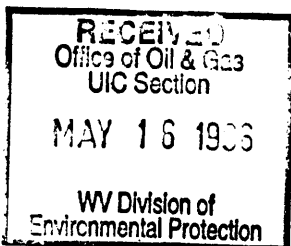
STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
for the
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

- WELL TYPE: Liquid Injection Gas Injection _____ Waste Disposal _____
- LOCATION: Elevation 1097 Watershed _____ Stackpole Run _____
District McElroy County Tyler Quadrangle _____ Centerpoint 286
- 8) WELL OPERATOR: Pennzoil Products Company 4670
P.O. Box 5519
Vienna, WV 26105
- 9) DESIGNATED AGENT: Philip S. Ondrusek
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 2957 Ft. (Top) to 2972 Ft. (Bottom)
- 14) Estimated depth of completed well (or actual depth of existing well) 3097 Ft.
- 15) Approximate water strata depths: Fresh 277 Ft. Salt 1304 Ft.
- 16) Approximate coal seam depths: 909 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	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILLUP OR SACKS	PACKERS
	Size	Grade	Weight	New	Used	For Drilling	Left in Well		
Conductor									Kinds
Fresh Water	8 5/8"	L.S.	20#	X		347	347	Cement To	
Coal								Surface	Sizes
Intermediate									
Production	4 1/2"	J-55	10.5#	X		3097	3097	Cement Over	Depths Set
Tubing								Salt Sand	
Liners									Perforations
									Top Bottom

- 25) APPLICANTS OPERATING RIGHTS were acquired from Elizabeth E. Longstreth
by Deed _____ Lease Other Contract _____ Dated April 2, 1894 of record in the
Tyler County Clerk's Office in Deed Book 94 Page 50



1) Date May 13, 1996
2) Well No. Uriah Stackpole No. E-11
3) SIC Code _____
4) API Well No. 47 - 095 - 1648-21
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 Luella Edna Stackpole
Address P.O. Box 423
Middlebourne, WV 26149
(ii) Name Darrell & Grace Stackpole
Address Alvy, WV 26322
(iii) Name Galford Jr. & Steven G. Wadsworth
Address Rt. 2, Box 91
New Martinsville, WV 26155

6 (iv) SURFACE OWNERS

Name William Carl Thompson
Address 3412 S. Weymouth Road
Medina, Ohio 44256-9230

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 47-095-1648-LI

Date June 10th. 19 96

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.

6-10-98

Permit expires _____ unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: ✓	Plat:	Casing:	Fee: CK#
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0301390164

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: _____