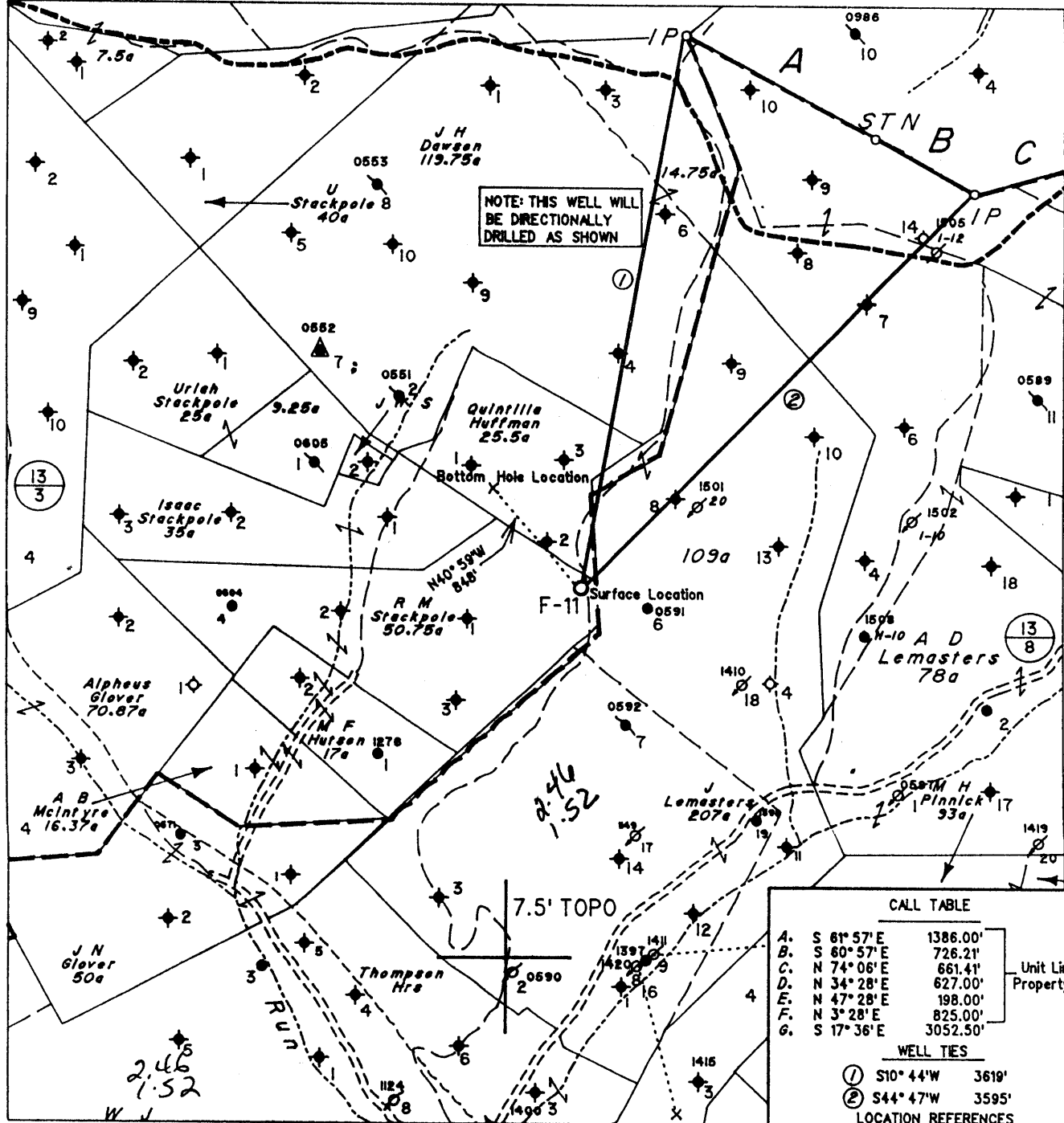


MS 5-25-93



Note: No Known Water Supply Sources Are Located Within 1000' Of Proposed Well

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

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

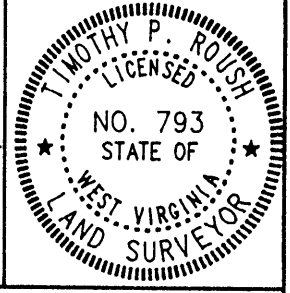
WELL TIES		
①	S10° 44' W	3619'
②	S44° 47' W	3595'

LOCATION REFERENCES		
N20° 16' W	178' 12"	Hickory
N11° 00' E	145' 3"	Black Oak
S12° 13' E	189' 14"	Red Oak

FILE NO. 1787
 MAP NO. N47 N 2 S E W 5
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION F.R. Ball No. 9
(47-095-0548) = 1152'

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 4, 19 93
 FARM Quintilla Huffman NO. F-11
 API WELL NO. 47-095-1542-41

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1255' WATERSHED Stackpole Run
 DISTRICT McElroy S COUNTY Tyler
 QUADRANGLE Centerpoint 15 NW

SURFACE OWNER Darrell & Grace Stackpole ACREAGE 24 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 25.5 Ac.
 LEASE NO. FEE 2149

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

JUN 1 1 1993

PLUG AND ABANDON CLEAN OUT AND REPLUG S-O Jacksonburg-Stringtown (095)
 TARGET FORMATION Gordon ESTIMATED DEPTH 3315'
 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 4670 ADDRESS Vienna, W.Va. 26105

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

Well Operator's Report of Well Work

Farm name: STACKPOLE, DARRELL/ GRACE Operator Well No.: Q.HUFFMAN F-11

DEC 07 93

LOCATION: Elevation: 1,255.00 Quadrangle: CENTER POINT

District: MCELROY County: TYLER
Latitude: 12900 Feet South of 39 Deg. 30Min. Sec.
Longitude 8000 Feet West of 80 Deg. 40 Min. Sec.

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

Agent: JAMES A. CREWS

Inspector: MIKE UNDERWOOD
Permit Issued: 06/07/93
Well work Commenced: 7/15/93
Well work Completed: 9/29/93
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (feet) 3407
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8	508	508	165 Sks.
4 1/2	3373.40	3373.40	300 Sks.

OPEN FLOW DATA

Producing formation Gordon Pay zone depth (ft) 3300 - 3365
 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 Hour:
 Static rock Pressure psig (surface pressure) after Hour:
 * Water Injection Well - Not Tested
 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 Hour:
 Static rock Pressure psig (surface pressure) after Hour:

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: 12/6/93

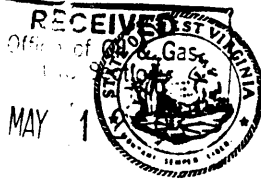
TREATMENT:

Perforated: 3326 - 3340 2 Holes Per Foot - 28 Holes
Treated: 300 Gal. 15% HCL Acid, 293 Bbl. Gelled Water &
1500# 80/100 Sand & 3500# 20/40 Sand

WELL LOG:

Sand & Shale	0 - 910
Sand	910 - 960
Sand & Shale	960 - 1140
Sand	1140 - 1190
Sand & Shale	1190 - 1570
Sand	1570 - 1610
Shale	1610 - 1675
Limestone	1675 - 1830
Sand & Shale	1830 - 2010
Sand	2010 - 2045
Sand & Shale	2045 - 2360
Little Lime	2360 - 2375
Pencil Cave	2375 - 2400
Blue Monday	2400 - 2440
Big Lime	2440 - 2470
Big Injun	2470 - 2740
Shale	2740 - 3300
Stray	3300 - 3320
Gordon	3320 - 3365
T.D.	3407

DF-411
DFT 419



- 1) Date: May 10, 19 93
 2) Operator's Well No. QUINTILLA HUFFMAN F-11
 3) SIC Code _____
 4) API Well NO. 47 - 095 - 1542-LI
 State County Permit
 5) UIC Permit No. _____

Issued 06/07/93

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

Expires 06/07/95

17357

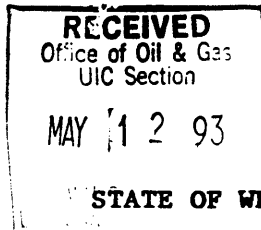
- WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
- LOCATION: Elevation: 1255' Watershed: Stackpole Run
 District: McElroy County: Tyler Quadrangle: Centerpoint
- 8) WELL OPERATOR Pennzoil Products Co. 37450 9) DESIGNATED AGENT J.A. Crews
 Address P.O. Box 5519 Address P.O. Box 5519
Vienna, WV 26105 Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED Name Mike Underwood
 Address Rt. #2, Box 135
Salem, WV 26426
- 11) DRILLING CONTRACTOR:
 Name _____
 Address _____
- * WELL WILL BE DIRECTIONALLY DRILLED
- 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 Depth 3215 feet(top) to 3230 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3315 ft.
- 15) Approximate water strata depths; Fresh 435 feet; salt, 1462 feet.
- 16) Approximate coal seam depths: 1080
- 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 2380
- 21) DETAILED IDENTIFICATION OF MATERIALS TO BE INJECTED, INCLUDING ADDITIVES: Fresh water, produced water, bactericides, and other chemicals as needed to maintain water quality & 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 FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water	<u>8 5/8</u>	<u>L.S.</u>	<u>20</u>	<input checked="" type="checkbox"/>		<u>505</u>	<u>505</u>	<u>Cement to</u>	
Coal								<u>Surface</u>	Sizes
Intermediate									
Production	<u>4 1/2</u>	<u>J-55</u>	<u>10.5</u>	<input checked="" type="checkbox"/>		<u>3315</u>	<u>3315</u>	<u>Cement over</u>	Depths set
Tubing								<u>Salt Sand</u>	
Liners									Perforations:
									Top Bottom

- 25) APPLICANT'S OPERATING RIGHTS were acquired from Quintilla & Eugenius Huffman
 by deed _____ / lease / other contract _____ / dated April 27, 1895, of record in the
Tyler County Clerk's office in Book 25 at page 118

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



1) Date May 10, 1993
Operator's
2) Well No. QUINTILLA HUFFMAN F-11
3) SIC Code
4) API Well No. 47 - 095 - 1542
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 Darrell & Grace Stackpole
Address Alvy, WV 26322
 - (ii) Name _____
Address _____
 - (iii) Name _____
Address _____
- 7 (i) COAL OPERATOR N/A
Address _____
- 7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____
- 7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
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 *Timothy P. Roush*
Timothy P. Roush
Its Supervisor - Surveying/Mapping
Telephone (304) 422-6565