

CALL TABLE	
A. S 44° 27' W	364.4'
B. S 28° 27' W	231.9'
C. S 43° 57' W	563.2'
D. S 40° 33' E	148.5'
E. S 44° 33' E	74.3'
F. S 16° 33' E	495.0'
G. S 18° 57' E	208.8'
H. N 56° 18' W	1544.4'

Unit Line & Property Line

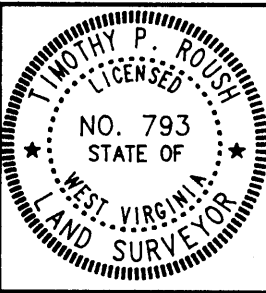
WELL TIES	
① S 2° 00' W	3073'
② S 12° 22' W	4034'

REFERENCES
S 81° 25' W 69' F.R. Ball No. 2
S 7° 32' E 121' 10" Walnut on Crk. Bank

Note: All Known Water Supply Sources Located Within 1000' Of Subject Well Are Shown
 (H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 ♦ Denotes a Water Supply Source

FILE NO. 1280
 MAP NO. N 47 N 1 S E W 4
 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 August 4, 19 95
 FARM F.R. Ball NO. M-6
 API WELL NO. 47-095-01641-S

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 846' WATERSHED Indian Creek
 DISTRICT McElroy COUNTY Tyler
 QUADRANGLE Centerpoint NW
 SURFACE OWNER Ralph & Betty Hayes ACREAGE 171.5 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 228.75 Ac.
 LEASE NO. 15459-50
 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 Gordon ESTIMATED DEPTH 2,800'
 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

RECEIVED
WV Division of
Environmental Protection

APR 10 1996

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

Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: HAYES, RALPH & BETTY

Operator Well No.: F.R. BALL M-6

LOCATION: Elevation: 846.33

Quadrangle: CENTERPOINT

District: MCELROY

County: TYLER

Latitude: 2,300 Feet south of

39 Deg 27 Min 30 Sec.

Longitude: 2,250 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: 9/28/95

Well work Commenced: 9/28/95

Well work Completed: 10/27/95

Verbal plugging

permission granted on:

Rotary X Cable Rig

Total Depth (feet) 2,846

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	214'	214'	100 SKS
4 1/2"	2,823'	2,823'	170 SKS

OPEN FLOW DATA

* Water Injection Well

Producing formation Gordon Pay zone depth (ft) 2694-2753
 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:

Date: 4/8/96

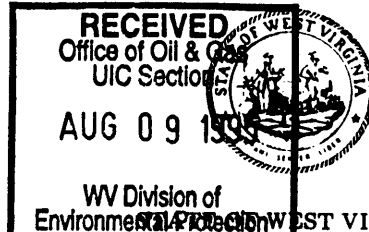
Treatment:

Perforated Gordon @ 2718 - 2724 (24 Holes) & 2734 -2738 (16 Holes)
Treated via 4 1/2" with 300 gal. 15% HCl, 266 BBL gelled water & 15,300# of
20/40 Sand.

Well Log:

Sand & Shale	0	-	1060'
Sand	1060'	-	1105'
Sand & Shale	1105'	-	1865'
Sand	1865'	-	1921'
Shale	1921'	-	1972'
Sand	1972'	-	2145'
Sand & Shale	2145'	-	2694'
Gordon	2694'	-	2753'
T.D.	2846'		

10/91



- 1) Date: August 7, 19 95
- 2) Operator's Well No. F. R. BALL NO. M-6
- 3) SIC Code
- 4) API Well NO. 47 - 095 - 1641-LI
State County Permit
- 5) UIC Permit No.

Issued 09/28/95

expires 09/28/97

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

21127

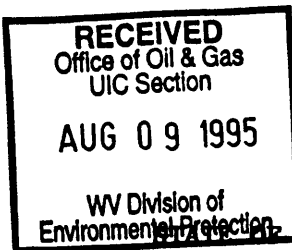
- WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
- LOCATION: Elevation: 846 / District: McElroy (5) / Watershed: Indian Creek 286 / County: Tyler / Quadrangle: Centerpoint
- 8) WELL OPERATOR Pennzoil Products Co. 37450 / Address P. O. Box 5519 4670 / Vienna, WV 26105
- 9) DESIGNATED AGENT Philip S. Ondrusek / Address P. O. Box 5519 / Vienna, WV 26105
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Mike Underwood / Address Route 2, Box 133 / 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) Gordon 419
- 13) GEOLOGICAL TARGET FORMATION, _____ Depth 2706 feet(top) to 2725 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 2800 ft.
- 15) Approximate water strata depths; Fresh, 40 feet; salt, N/A feet.
- 16) Approximate coal seam depths: 650'
- 17) Is coal being mined in the area? Yes _____ / No
- 18) Virgin reservoir pressure in target formation 1260 psig. Source Estimated
- 19) Estimated reservoir fracture pressure 3500 psig (BHFP)
- 20) MAXIMUM PROPOSED INJECTION OPERATIONS: Volume per hour: 25 Bottom hole pressure 2332
- 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 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		200'	200'	Cement to surface	Sizes
Coal									
Intermediate									
Production	4-1/2	J-55	10.5	X		2800'	2800'	Cement over salt sand	Depths set
Tubing									
Liners									Perforations: Top Bottom

- 25) APPLICANT'S OPERATING RIGHTS were acquired from F. R. Ball
by deed _____ / lease / other contract _____ / dated September 11, 1895, of record in the
Tyler County Clerk's office in Lease Book 27 at page 309

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



1) Date August 7, 1995
Operator's _____
2) Well No. F. R. BALL #M-6
3) SIC Code _____
4) API Well No. 47 - 095 - 1641-5
State County Permit _____

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

DIVISION OF OIL AND GAS, DEPARTMENT OF ENERGY

- | | |
|--|--|
| <p>6) SURFACE OWNER(S) OF RECORD TO BE SERVED</p> <p>(i) Name <u>Ralph & Betty Hayes</u>
Address <u>HC 62, Box 43-A</u>
<u>Jacksonburg, WV 26377</u></p> <p>(ii) Name <u>Jack Glover</u>
Address <u>320 North First Street</u>
<u>Paden City, WV 26159</u></p> <p>(iii) Name _____
Address _____</p> | <p>7 (i) COAL OPERATOR <u>N/A</u>
Address _____</p> <p>7 (ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____</p> <p>7 (iii) COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____</p> |
|--|--|

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.

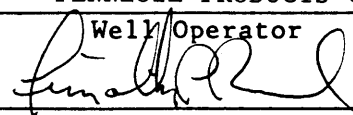
The date proposed for the first injection or waste disposal is _____, 19____.

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
Its Supervisor, Surveying/Mapping
Telephone (304) 422-6565