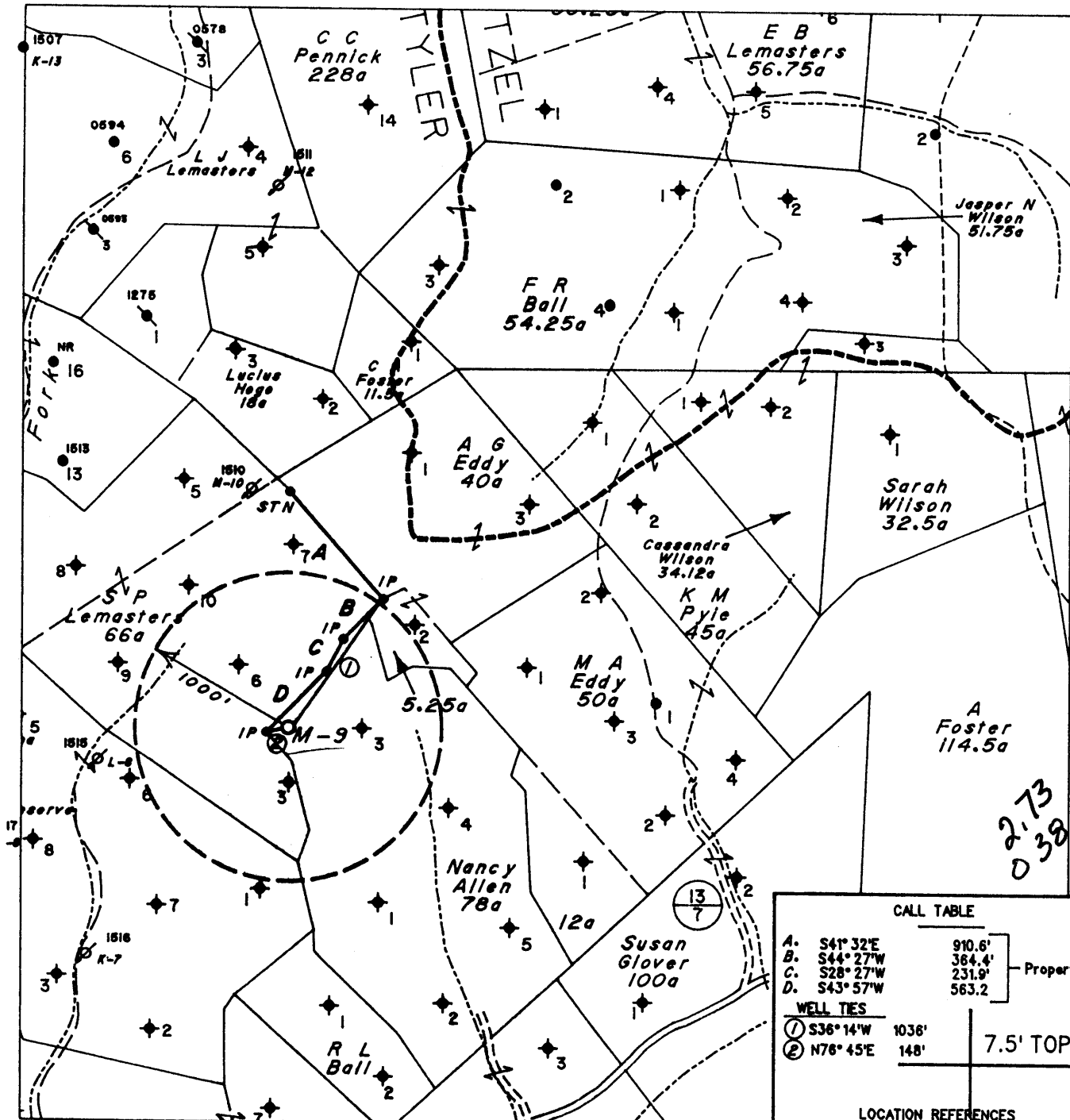


GS 3-2-93

LATITUDE 39° 30' 00"

LONGITUDE 80° 40' 00"



2.73
0.38

CALL TABLE		
A.	S41° 32'E	910.6'
B.	S44° 27'W	364.4'
C.	S28° 27'W	231.9'
D.	S43° 57'W	563.2'

Property Line

WELL TIES		7.5' TOPO
①	S36° 14'W 1038'	
②	N78° 45'E 148'	

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

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

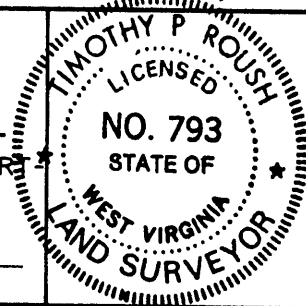
LOCATION REFERENCES

N25° 00'E	149' 18" Ash
N42° 54'E	167' 12" Poplar
S5° 03'W	182' 12" Hickory

FILE NO. 1778
 MAP NO. N47 N S E W
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION C.C. Pennick No. 22
(47-095-1056) = 1382'

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 February 9, 19 93
 FARM Nancy Allen NO. M-9
 API WELL NO. 47-095-1524-41

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1355' WATERSHED Indian Creek
 DISTRICT McElroy 5 COUNTY Tyler
 QUADRANGLE Centerpoint

SURFACE OWNER Earl and Edith Glover ACREAGE 76.74 Ac.
 OIL & GAS ROYALTY OWNER Pennzoil Products Co. et al. LEASE ACREAGE 78 Ac.
 LEASE NO. 57107-00

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X 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 3350'
 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 Vienna, W.Va. 26105

8-0-95

FORM IV-6

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

Well Operator's Report of Well Work

Farm name: GLOVER, EARL & EDITH Operator Well No.: NANCY ALLEN M-9

LOCATION: Elevation: 1,355.00 Quadrangle: CENTER POINT

District: MCELROY County: TYLER
Latitude: 14200 Feet South of 39 Deg. 30Min. Sec.
Longitude 2050 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: 03/24/93
Well work Commenced: 08/05/93
Well work Completed: 10/20/93
Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 3326'
Fresh water depths (ft) N/A

Salt water depths (ft) N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 673'

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft. To surface
8-5/8	645'	645'	50 sks.
4-1/2	3316.80	3316.80	300 sks.

OPEN FLOW DATA

WATER INJECTION WELL

Producing formation Gordon Pay zone depth (ft) 3245'-3277'
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: 7/8/94

TREATMENT

Perforated: Gordon with 16 holes 3260' - 3268'.
Treated with 300 gals. 15% HCL, 317 bbls. gelled water
and 7000# 20/40 sand.

WELL LOG

Sand & Shale	0 - 673
Coal	673 - 686
Sand & Shale	686 - 1774
Sand	1774 - 1800
Shale	1800 - 1850
Sand	1850 - 1888
Sand & Shale	1888 - 2218
Shale	2218 - 2395
Little Lime	2395 - 2408
Shale	2408 - 2438
Big Lime	2438 - 2448
Shale	2448 - 2498
Big Injun	2498 - 2666
Shale	2666 - 3022
Berea	3022 - 3030
Shale	3030 - 3225
Stray	3225 - 3299
Shale	3229 - 3245
Gordon	3245 - 3277
T.D.	3326

1701

(Obverse)

7/85

FEB 26 93

WV Division of Environmental Protection



- 1) Date: February 24, 19 93
- 2) Operator's Well No. NANCY ALLEN NO. M-9
- 3) SIC Code
- 4) API Well NO. 47 095 1524-LI
State County Permit
- 5) UIC Permit No.

Issued 3/24/93

Expires 3/24/95

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

17016

- 5) WELL TYPE: Liquid injection / Gas injection (not storage) _____ / Waste disposal _____
- 7) LOCATION: Elevation: 1355' / Watershed: Indian Creek 286
District: McElroy / County: Tyler / Quadrangle: Centerpoint
- 3) 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 _____
- 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 49 / Depth 3250 feet(top) to 3260 feet(bottom)
- 14) Estimated depth of completed well, (or actual depth of existing well) 3350 ft.
- 15) Approximate water strata depths; Fresh, 546 feet; salt, > 550 feet.
- 16) Approximate coal seam depths: 1166
- 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 2340
- 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
- 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		640	640	Cement to Surface	Sizes
Coal									
Intermediate									
Production	4 1/2	J-55	10.5	X		3350	3350	Cement over Salt Sand	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

- 25) APPLICANT'S OPERATING RIGHTS were acquired from Nancy Allen
by deed _____ / lease / other contract _____ / dated September 26, 19 83, of record in the
Tyler County Clerk's office in Book 246 at page 575

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

Oil and Gas Section
FEB 26 93
WV Division of Environmental Protection

1) Date February 24, 1993
Operator's
2) Well No. NANCY ALLEN NO. M-9
3) SIC Code
4) API Well No. 47 - 095 - 1520
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 Earl & Edith Glover
Address HC 62, Box 41
Jacksonburg, WV 26377
- (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
Its Supervisor - Surveying/Mapping
Telephone (304) 422-6565

OFFICE USE ONLY
DRILLING PERMIT

80 2 5

Permit number 095-1524-LI

March 24th. 1993
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 3-24-95 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: ✓	Agent: ✓	Plat: <i>[Signature]</i>	Casing: <i>[Signature]</i>	Fee: 18713
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[Signature]
Director, Oil and Gas Division

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: _____