

NOTES:
 NOT ALL EXISTING WELLS SHOWN
 ALL PPG PROPERTY IN THIS AREA

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS FIELD BOOK-FILE 92-8445

FILE NO. 92-8445 SURVEYING
 DRAWING NO. 92-8445
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1 IN 2500
 PROVEN SOURCE OF ELEVATION M.S.D.M-OHIO RIVER
PARSONS 1974-NO 2 B
 ELEVATION 978.6

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 ENERGY.
 (SIGNED) Henry M. Parsons
 R.P.E. _____ L.L.S. No. 98

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

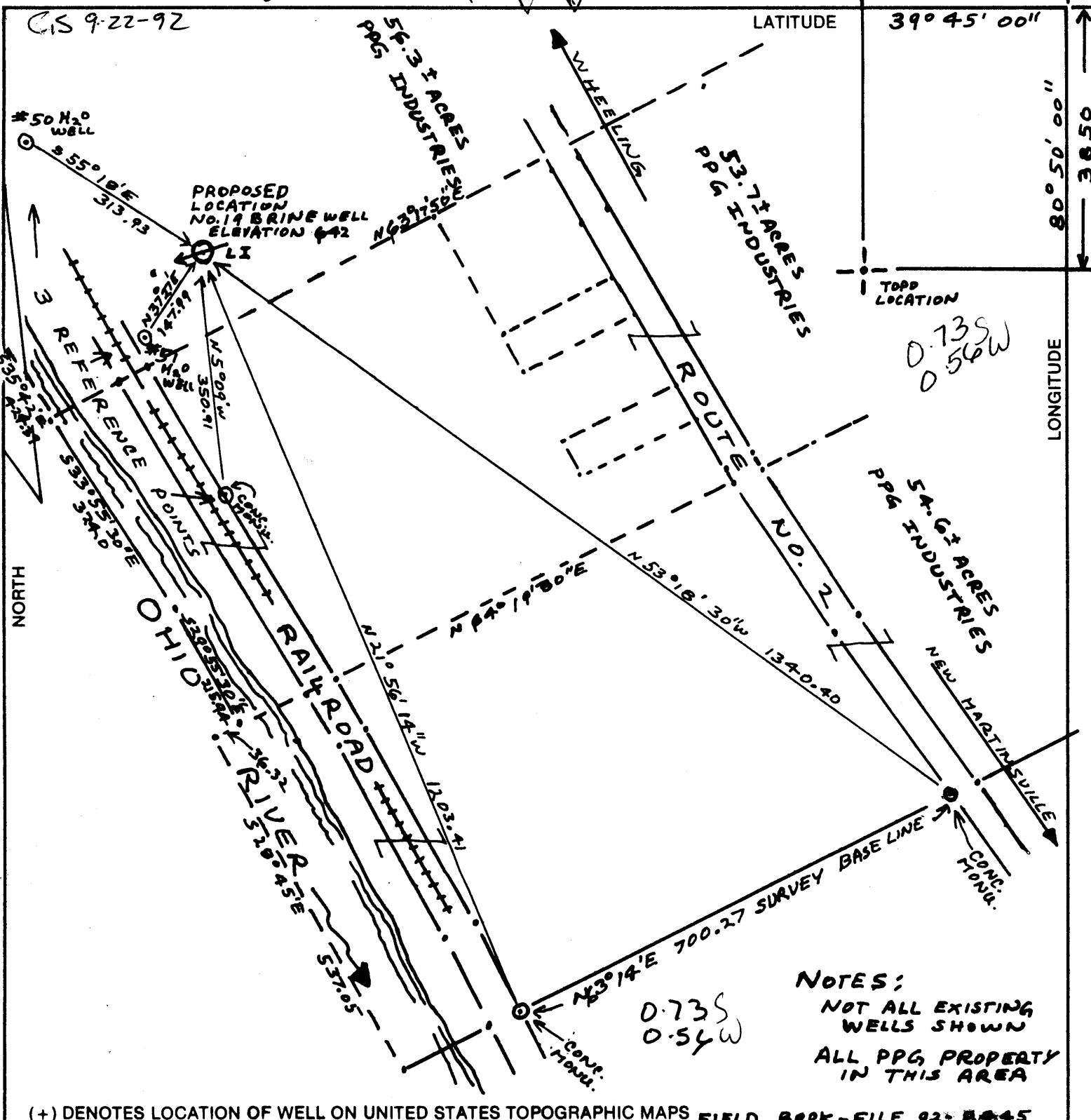


DATE AUGUST 24, 1992
 OPERATOR'S WELL NO. 19 BRINE WELL
 API WELL NO. 47 051 00739 W
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 642 WATERSHED OHIO RIVER
 DISTRICT FRANKLIN COUNTY MARSHALL
 QUADRANGLE NEW MARTINSVILLE
 SURFACE OWNER PPG INDUSTRIES ACREAGE 56.3±
 OIL & GAS ROYALTY OWNER PPG INDUSTRIES LEASE ACREAGE _____
 LEASE NO. _____
 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 SALINA ESTIMATED DEPTH 6870 FT
 WELL OPERATOR PPG INDUSTRIES, INC. DESIGNATED AGENT K. S. WALBURN
 ADDRESS PO BOX 191 ADDRESS P.O. BOX 191
NEW MARTINSVILLE, WV 26155 NEW MARTINSVILLE, WV 26155

COUNTY NAME MARSH
 PERMIT 0739 W

DEEP WELL



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS FIELD BOOK-FILE 92-8445

FILE NO. 92-8445 **PARSONS SURVEYING**
 DRAWING NO. 92-8445
 SCALE 1" = 200'
 MINIMUM DEGREE OF ACCURACY 1 IN 2500
 PROVEN SOURCE OF ELEVATION U.S. B.M.-OHIO RIVER CROSSING 1934-NO. 28
 ELEVATION 638.6

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 ENERGY.
 (SIGNED) Henry M. Parsons
 R.P.E. _____ L.L.S. No. 98

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE AUGUST 24, 1992
 OPERATOR'S WELL NO. 19 BRINE WELL
 API WELL NO. 47 051 0739-B

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

LOCATION: ELEVATION 642 WATER SHED OHIO RIVER
 DISTRICT FRANKLIN COUNTY MARSHALL
 QUADRANGLE NEW MARTINSVILLE 15 N

SURFACE OWNER PPG INDUSTRIES ACREAGE 56.3±
 OIL & GAS ROYALTY OWNER PPG INDUSTRIES LEASE ACREAGE _____
 LEASE NO. _____

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

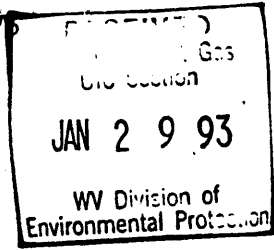
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION SALINA ESTIMATED DEPTH 6870 FT
 WELL OPERATOR PPG INDUSTRIES, INC. DESIGNATED AGENT K. S. WALBORN
 ADDRESS P.O. BOX 191 ADDRESS P.O. BOX 191
NEW MARTINSVILLE, WV 26155 NEW MARTINSVILLE, WV 26155

SEP 28 1992

FORM WW-6
068065
HALLS INC.

COUNTY NAME
PERMIT



State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: PPG INDUSTRIES, INC Operator Well No.: (BRINE WELL) 19

LOCATION: Elevation: 642.5' Quadrangle: New Martinsville

District: FRANKLIN County: MARSHALL
Latitude: 3850 Feet South of 39 Deg. 45 Min. 00 Sec.
Longitude 3000 Feet West of 80 Deg. 50 Min. 00 Sec.

Company: PPG INDUSTRIES, INC.
P. O. BOX 191
NEW MARTINSVILLE, WV 26155-0191

Agent: KEN S. WALBORN

Inspector: Randall Mick
Permit Issued: 9/22/92
Well work Commenced: 09-22-92
Well work Completed: 12-15-92
Verbal Plugging
Permission granted on: Applichian Drilling
Rotary x Cable Rig
Total Depth (feet) 6776
Fresh water depths (ft) 23 to 74

Salt water depths (ft) 6682

| Size | Casing & Tubing | Used in Drilling | Left in Well | Cement Fill Cu. Ft. |
|---------|-----------------|------------------|--------------|---------------------|
| 30" | | 72.60' | 66.10' | -0- |
| 20" | | 131.05' | 131.05' | 234 |
| 13 3/8" | | 2000.25' | 2000.25' | 1852 |
| 9 5/8" | | 6204.28' | 6204.28' | 2029 |
| 7" | | 1300.45' | 1300.45' | -0- |

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

OPEN FLOW DATA

Producing formation N/A Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/
Final open flow MCF/d Final open flow Bbl/
Time of open flow between initial and final tests Hour
Static rock Pressure psig (surface pressure) after Hour

Second producing formation N/A Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/
Final open flow MCF/d Final open flow Bbl/
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 PERFORATE 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: PPG INDUSTRIES, INC.

By: K. S. Walborn
Date: 1/26/93

Note: The Well Log is presently being prepared and will be submitted when completed, prior to February 15th.

P.P.G. #19 BRINE WELL
WELL LOG

API 47-51-00739B

All depths measured from a K.B. elevation of 662.5'

| <u>FORMATION</u> | <u>TOP</u> | <u>BOTTOM</u> | <u>REMARKS</u> |
|----------------------|------------|---------------|-------------------|
| Substructure | 0 | 20 | |
| Gravel & Fill | 20 | 22 | |
| Sandy Clay | 22 | 39 | |
| Sand & Gravel | 39 | 89 | Fresh Water @ 39' |
| Yellow Clay | 89 | 90 | |
| Limestone & Shale | 90 | 110 | Solid Rock @ 90' |
| <u>Pennsylvanian</u> | | | |
| Monongahela | 110 | 280 | |
| Conemaugh | 280 | 755 | |
| Allegheny | 755 | 1055 | |
| Pottsville | 1055 | 1147 | |
| Shale | 1147 | 1188 | |
| <u>Mississippian</u> | | | |
| | | | <u>COALS</u> |
| Maxton | 1188 | 1227 | 276' - 278' |
| Mauch Chunk | 1227 | 1310 | 876' - 880' |
| Greenbrier | 1310 | 1392 | 946' - 948' |
| Big Injun | 1392 | 1520 | 1026' - 1028' |
| Pocono | 1520 | 1617 | 1048' - 1050' |
| Shale | 1617 | 1774 | 1122' - 1124' |
| Weir | 1774 | 1809 | |
| Sunbury? | 1809 | 1975 | |
| Berea | 1975 | 1984 | |
| <u>Devonian</u> | | | |
| Conewango | 1984 | 2063 | |
| Catskill | 2063 | 2934 | |
| Riley | 2934 | 2975 | |
| Harrell Shale | 2975 | 4881 | |
| Hamilton | 4881 | 5216 | |
| Marcellus? | 5216 | 5738 | |
| Onondaga | 5738 | 5764 | |
| Needmore? | 5764 | 5822 | |
| Oriskany | 5822 | 6299 | |
| Helderberg | 6299 | 6432 | |
| <u>Silurian</u> | | | |
| Keyser | 6432 | 6490 | |
| Salina | 6490 | 6896 | |
| Syracuse Salt | 6698 | 6804 | |
| Carbonate Rock | 6804 | 6806 | |
| Salt | 6806 | 6812 | |
| Carbonate Rock | 6812 | 6832 | |
| Salt | 6832 | 6862 | |
| Carbonate Rock | 6862 | 6878 | |
| Salt | 6878 | 6880 | |
| Carbonate Rock | 6880 | 6896 | |
| T.D. | 6896 | | |

051-0739
 Issued 9/22/92

FORM WW-2B

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

Express Page 1 of 1
 9/22/92

- 1) Well Operator: PPG Industries, Inc. 39600 (3) 508
- 2) Operator's Well Number: No. 19 (Brine Well (Production)) 3) Elevation: 642.5
- 4) Well type: (a) Oil / or Gas / or Brine Production /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Salina 519
- 6) Proposed Total Depth: 6870 feet
- 7) Approximate fresh water strata depths: 70 ft.
- 8) Approximate salt water depths: 1050 to 1600 ft.
- 9) Approximate coal seam depths: 254-259
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work:
- 12)

RECEIVED
 Office of Oil
 UIC Section
 SEPT 08 92
 WV Division of
 Environmental Protection

CASING AND TUBING PROGRAM

| TYPE | SPECIFICATIONS | | | FOOTAGE INTERVALS | | CEMENT Fill-up (cu. ft.) |
|--------------|----------------|-------|-------------------|-------------------|-----------------|--------------------------------|
| | Size | Grade | Weight per ft. | For drilling | Left in well | |
| Conductor | 20" | H-40 | 94 | 130' | 130' | 100 |
| Fresh Water | | | | | | |
| Coal | | | | | | |
| Intermediate | 13 3/8" | K-55 | 54.5 | 2000' | 2000' | 1583 |
| Production | 9 5/8" | K-55 | 40 | 6420' | 6420' | 1690 |
| Tubing | | | | | | |
| Liners | 7" | K-55 | 26 | 1300 | 1300 | |

PACKERS : Kind Baker Hanger Packer
 Sizes 7"
 Depths set 5920'

CK# T1120

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent
 (Type)

14304

1) Date: August 25, 1992
2) Operator's well number
No. 19 Brine Well (Production)
3) API Well No: 47 - 051 - 0739-B
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

RECEIVED
Office of Oil & Gas
UIC Section
SEPT 08 92
WV Division of
Environmental Protection

4) Surface Owner(s) to be served:
(a) Name PPG Industries, Inc.
Address P. O. Box 191
New Martinsville, WV 26155
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector _____
Address _____
Telephone (304)- _____

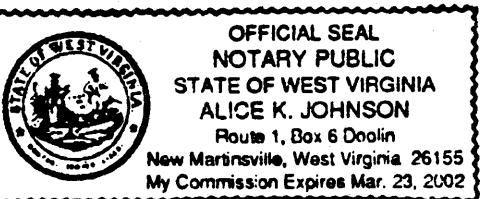
5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name PPG Industries, Inc.
Address P. O. Box 191
New Martinsville, WV 26155
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
_____ Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:
_____ Personal Service (Affidavit attached)
_____ Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form 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.



Well Operator PPG Industries, Inc.
By: K. S. Wallborn
Its: Manager, Environmental Control
Address P. O. Box 191
New Martinsville, WV 26155
Telephone (304) 455-2200

Subscribed and sworn before me this 26th day of August, 1992

Alice K. Johnson Notary Public
My commission expires Mar. 23, 2002