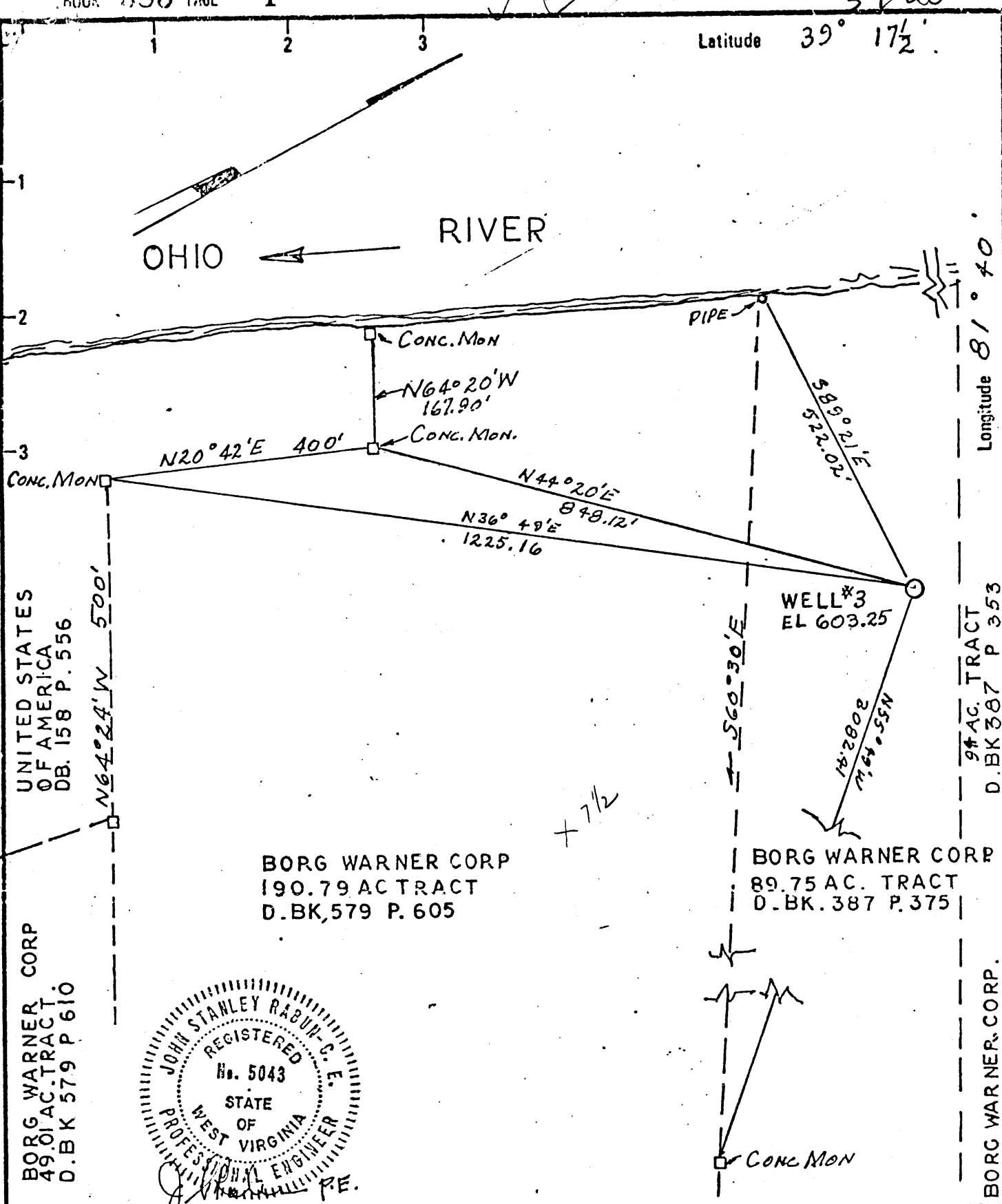


Latitude 39° 17 1/2'



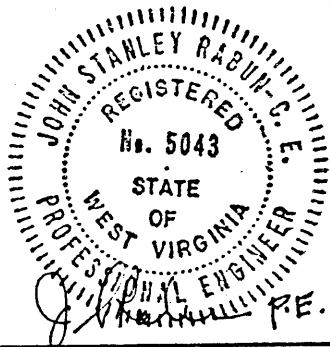
UNITED STATES OF AMERICA DB. 158 P. 556

BORG WARNER CORP 49.01 AC. TRACT D.BK 579 P 610

Longitude 81° 40'

9 AC. TRACT D.BK 387 P 353

BORG WARNER CORP.



BORG WARNER CORP 190.79 AC TRACT D.BK.579 P.605

BORG WARNER CORP 89.75 AC. TRACT D.BK.387 P.375

RELOCATION
 New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure
 Source of Elevation BORG WARNER CORP CONC MON #1 EL 644.337

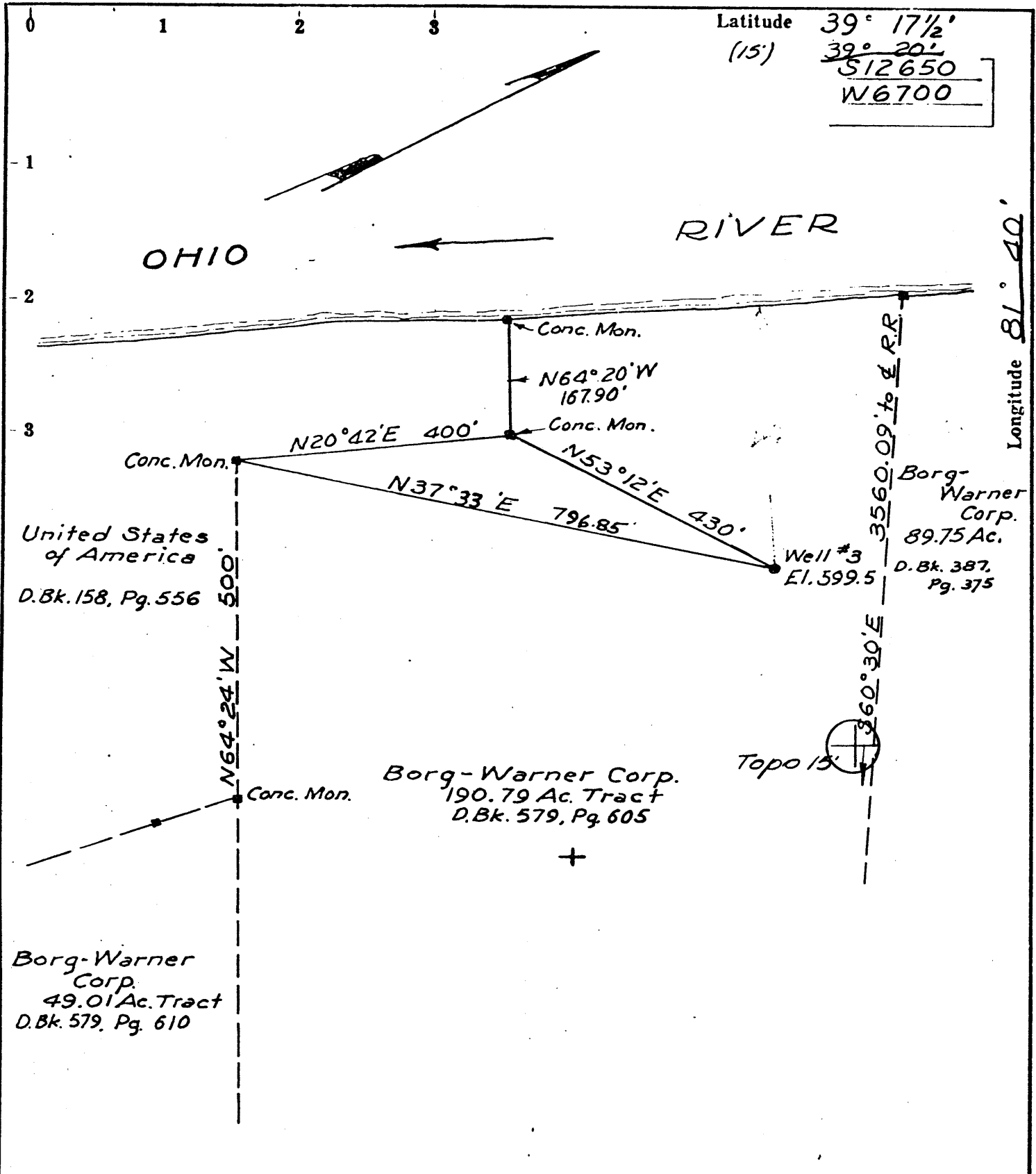
"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Company BORG WARNER CORP. 105
 Address WOODMAR PLANT WASHINGTON, W. VA.
 Farm BORG WARNER CORP.
 Tract _____ Acres 89.75 Lease No. _____
 Well (Farm) No. 3 Serial No. _____
 Elevation (Spirit Level) 437 097
 Quadrangle LITTLE HOCKING 7 1/2' SERIES
 County WOOD District LUBECK 3
 Engineer J. Rabun P.E.
 Engineer's Registration No. W.V. No. 5043
 File No. _____ Drawing No. _____
 Date 4-21-77 Scale 1"=200'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. 107-0766-F

SW + Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

DEC 8 1986



- Fracture....
- Redrill.....
- New Location
- Drill Deeper
- Abandonment

Source of Elevation Borg-Warner Corp. Conc. Mon #1 El. 644.337

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Minimum accuracy, one part in 200

Company BORG-WARNER CORP.
 Address P.O. Box 1868 Parkersburg W.V. 26101
Woodmar Plant, Washington, W.Va.

Farm Borg-Warner Corp.

Tract _____ Acres 190.79 Lease No. _____

Well (Farm) No. 3 Serial No. SW

Elevation (Spirit Level) 599.5 Parkersburg 15'

Quadrangle Little Hocking 7 1/2' Series

County Wood District Lubeck

Surveyor or Engineer Carley J. Marshall LLS

Surveyor's or Engineer's Registration No. 3

File No. _____ Drawing No. _____

Date May 4, 1976 Scale 1" = 200'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

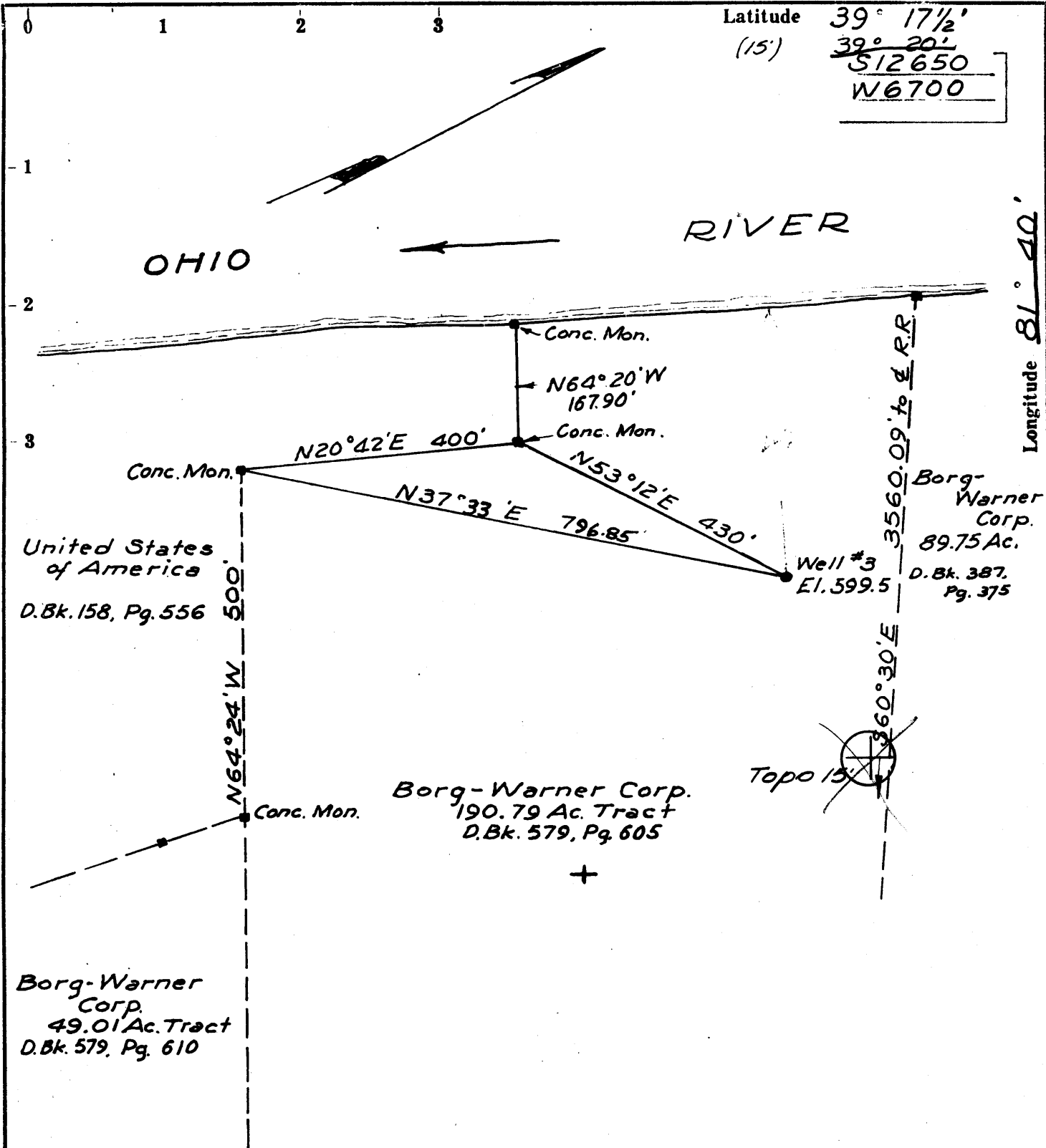
WELL LOCATION MAP
 FILE NO. W00-766
FORMERLY W00-754

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

47-107 MAR 25 1977

Latitude $39^{\circ} 17\frac{1}{2}'$
 (15') $39^{\circ} 20'$
 512650
 $W6700$



- Fracture.....
- Redrill.....
- New Location
- Drill Deeper
- Abandonment

Source of Elevation Borg-Warner Corp. Conc. Mon #1 El. 644.337
 I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.
 Minimum accuracy, one part in 200

Company BORG-WARNER CORP.
 Address PO Box 1868, Parkersburg WV 26101
Woodmar Plant, Washington, W.Va.
 Farm Borg-Warner Corp.
 Tract _____ Acres 190.79 Lease No. _____
 Well (Farm) No. 3 Serial No. SW
 Elevation (Spirit Level) 599.5 Parkersburg 15'
 Quadrangle Little Hocking 7 1/2' Series
 County Wood District Lubeck
 Surveyor or Engineer Carley L. Marshall LLS
 Surveyor's or Engineer's Registration No. 3
 File No. _____ Drawing No. _____
 Date May 4, 1976 Scale 1" = 200'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. W00-766
 FORMERLY W00-754

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 — Denotes one inch spaces on border line of original tracing.

47-107 MAR 25 1977



Date January 8, 1988
 Operator's
 Well No. 3
 Farm Borg-Warner
 API No. 47 - 107 - 0766-F

IV-35
 (Rev 8-81)

RECEIVED
 JAN 12 1988

State of West Virginia
 Department of Mines
 Oil and Gas Division

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

WELL OPERATOR'S REPORT
 OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas X / Liquid Injection / Waste Disposal /
 (If "Gas," Production / Underground Storage / Deep / Shallow /)

LOCATION: Elevation: 603.25 Watershed Ohio River
 District: Lubeck County Wood Quadrangle Little Hocking

COMPANY Borg-Warner Chemicals, Inc.
 ADDRESS P. O. Box 1868
Parkersburg, West Virginia 26102
 DESIGNATED AGENT Arthur T. Sandy
 ADDRESS P. O. Box 1868, Parkersburg, WV 26102
 SURFACE OWNER Borg-Warner Chemicals, Inc.
 ADDRESS P. O. Box 1868, Parkersburg, WV 26102
 MINERAL RIGHTS OWNER Same as above.
 ADDRESS
 OIL AND GAS INSPECTOR FOR THIS WORK Glen P.
Robinson ADDRESS Rt. #1, Mt. Pleasant Est.
Mineral Wells, WV 26150
 PERMIT ISSUED December 5, 1986
 DRILLING COMMENCED Recompletion work started
12/8/86
 DRILLING COMPLETED Recompletion work completed
12/23/86
 IF APPLICABLE: PLUGGING OF DRY HOLE ON
 CONTINUOUS PROGRESSION FROM DRILLING OR
 REWORKING. VERBAL PERMISSION OBTAINED
 ON

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
11 3/4	110'	110'	Circulated to surface
9 5/8			
8 5/8	1,929'	1,929'	Circulated to surface
7	Note: Perm. bridge plug set at 1,875' in 8-5/8" casing.		
5 1/2	4,061'	2,146'	Cement top est. @ 3,871'
4 1/2	Note: Perm. plug set at 4,004' in		
3	5-1/2" casing.		
2	4,068'	1,804.5'	
Liners used			

GEOLOGICAL TARGET FORMATION Berea Sandstone Depth 1809-1812 feet
 Depth of completed well 1,872 feet Rotary / Cable Tools Service rig
 Water strata depth: Fresh 15-90 feet; Salt feet
 Coal seam depths: Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Berea Sandstone Pay zone depth 1809-1812 feet
 Gas: Initial open flow Sl. Show Mcf/d Oil: Initial open flow Bbl/d
 Final open flow 23 Mcf - only 1 month Mcf/d Oil: Final open flow Bbl/d
 Time of open flow between initial and final tests 24 hours
 Static rock pressure psig (surface measurement) after hours shut in
 (If applicable due to multiple completion--)
 Second producing formation Pay zone depth feet
 Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
 Final open flow Mcf/d Oil: Final open flow Bbl/d
 Time of open flow between initial and final tests hours
 Static rock pressure psig (surface measurement) after hours shut in

(Continue on reverse side)

JAN 19 1988

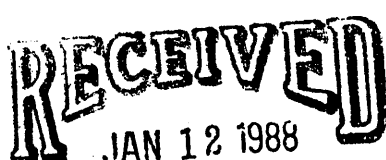
DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

A permanent bridge plug was set 4,004' in the 5-1/2" casing with one bag calseal on top of plug. Cut 5-1/2" casing at 1,915' with young wireline casing cutter. Pulled 1,915' of 5-1/2" casing from hole. Set permanent bridge plug at 1,875' in 8-5/8" casing with two bags calseal on top of plug. Perforate 8-5/8" casing at 1,810'-1,812' with 16 holes. Nowsco foam fraced Berea. Formation broke down at 2,000 psig and treated at 1,650 psig. Treatment consisted of 75% quality foam,

30,000 lbs. 20/40 sand, and a total of 456,720 scf nitrogen. Total water used 220- bbl. Total bbls. of foam treatment was 862 bbls. ISIP 1500 psig 5 min. sip 1430 psig.

Well averaged 23 MCF/day through first month of production. Surface shut-in pressure 600 psig.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas	
Sandstone and Gravel			0	100	<div style="text-align: center;">  <p>DIVISION OF OIL & GAS DEPARTMENT OF ENERGY</p> </div>	
Sand, Shale			100	240		
Sand			240	300		
Shale			300	390		
Sand			390	500		
Sand, Shale			500	810		
Sand			810	870		
Shale			870	900		
Sand			900	995		
Shale			995	1020		
Sand			1020	1100		
Shale			1100	1140		
Sand			1140	1245		
Shale			1245	1300		
Sand			1300	1430		Salt water
Shale			1430	1815		
Sand			1815	1818		S1 Show Gas
Shale-Siltstone			1818	4003		
Limestone Or			4003	4092		
Sandstone Or			4092	4100		
Sandy Limestone <i>held</i>			4100	4116	Total Depth	

(Attach separate sheets as necessary)

Borg-Warner Chemicals, Inc.
Well Operator

By: Arthur T. Sandy
Arthur T. Sandy

Date: January 8, 1988

Note: Regulation 2.02(i) provides as follows:
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



NOV 9 1977
OIL & GAS
T.O. 15

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Rotary Cable _____
 Oil _____ Gas
 Recycling _____ Comb. _____
 Water Flood _____ Storage _____
 Disposal _____ (Kind)

Quadrangle Little Hocking 7-1/2

Permit No. WOO-766 REV

47-107

Company Borg-Warner Corp.
 Address P.O. Box 1868, Parkersburg, W. Va. 26101
 Farm Borg-Warner Corp. Acres 190.79
 Location (waters) Ohio River
 Well No. Three Elev. 619
 District Lubeck County Wood
 The surface of tract is owned in fee by _____
Borg-Warner Corp.
 Address As above
 Mineral rights are owned by Borg-Warner Corp.
 Address As above
 Drilling Commenced 9-13-77
 Drilling Completed 9-22-77
 Initial open flow Sl Sh gas cu. ft. _____ bbls.
 Final production 500,000 cu. ft. per day xx bbls.
 Well open 2 hrs. before test 1400 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10" 11-3/4"	110	110	Circulated to surface
9 5/8			
8 5/8	1929	1929	Circulated to surface
7			
5 1/2	4061	4061	Est. cem. top 3900
4 1/2			
3			
2	4068	4068	
Liners Used			

Well treatment details:

Attach copy of cementing record.

Halliburton 10-3-77: 1000 bbl water - 28,000# 20/40 mesh sand -
500 gal Hcl Acid

Coal was encountered at None Feet _____ Inches _____
 Fresh water _____ Feet 15'-90' Salt Water _____ Feet 1300-1430
 Producing Sand Oriskany Depth 4092

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sandstone and Gravel			0	100		
Sand, Shale			100	240		
Sand			240	300		
Shale			300	390		
Sand			390	500		
Sand-Shale			500	810		
Sand			810	870		
Shale			870	900		
Sand			900	995		
Shale			995	1020		
Sand			1020	1100		
Shale			1100	1140		
Sand			1140	1245		
Shale			1245	1300	Salt water	
Sand			1300	1430	Salt water	
Shale			1430	1815		
Sand <u>Perea</u>			1815	1818	Sl Show Gas	
Shale-Siltstone			1818	4003		
Limestone			4003	4092		
Sandstone			4092	4100		
Sandy Limestone <u>Helderberg</u>			4100	4116	Total Depth	

(over)

* Indicates Electric Log tops in the remarks section.

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MAR 4 1977

OIL & GAS DIVISION
DEPARTMENT OF MINES



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,
Charleston, W. Va.

DATE March 3, 1977

Surface Owner Borg-Warner Corporation

Company Borg Warner Corporation

Address P. O. Box 1868, Parkersburg, WV 26101

Address P. O. Box 1868, Parkersburg, WV 26101

Mineral Owner Same

Farm Borg-Warner Corporation Acres 190.79

Address _____

Location (waters) Ohio River

Coal Owner None

Well No. Three Elevation 599.5

Address _____

District Lubeck County Wood

Coal Operator _____

Quadrangle Little Hocking 7-1/2

Address _____

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for Drilling. This permit shall expire if operations have not commenced by 7-8-77.

Robert H. Bell
Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Paul Goodright
PH: 477-2455 ADDRESS Smithville, W. Va.

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated Oct. 9, 1970 by Arthur O. Mollendick made to Borg Warner Corporation and recorded on the _____ day of _____ 19____, in Wood County, Book 579 Page 605

NEW WELL _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE
_____ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. *

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

West Virginia Geological and Economic Survey
P. O. Box 879
Morgantown, W. Va. 26505

Address _____
of _____
Well Operator

Very truly yours Borg Warner Corporation

(Sign Name) Arthur O. Sandy
Well Operator

P. O. Box 1868

Street

Parkersburg,

City or Town

W. Va.

State

(Woo-754-expired)

*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

signed by: Arthur O. Sandy

Woo-766

PERMIT NUMBER

47-107

**THIS IS AN ESTIMATE ONLY
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME _____ NAME **Arthur Sandy**
 ADDRESS _____ ADDRESS **P.O.Box 1868, Parkersburg, WV 26101**
 TELEPHONE _____ TELEPHONE **485-1771**
 ESTIMATED DEPTH OF COMPLETED WELL: **4200** ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: **Oriskany**
 TYPE OF WELL: OIL _____ GAS _____ COMB. STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10	150	150	Surface
9 - 5/8			
8 - 5/8	1841	1841	500' to 1341'
7			
5 1/2	4071	4071	500' to 3771'
4 1/2			
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS **40** FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS **None** _____
 IS COAL BEING MINED IN THE AREA? **No** _____ BY WHOM? _____

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for _____ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the _____ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title

FORM W-2
(Obverse)
7/85

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NOV 26 1986



1) Date: September 15, 1986
2) Operator's Well No. Borg-Warner # 3
3) API Well No. 47-107-0766-Rev -F
State County Permit W

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

- 4) WELL TYPE: A Oil / Gas / B (If "Gas", Production / Underground storage / Deep / Shallow /
- 5) LOCATION: Elevation: 603.25 / Watershed: Ohio River / District: Lubeck 1053 / County: Wood 107 / Quadrangle: Little Hocking 437
- 6) WELL OPERATOR BORG-WARNER CORP CODE: 0500 / 7) DESIGNATED AGENT Arthur Sandy / Address: P O Box 1868 Parkersburg, WV
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name: Glen P. Robinson / Address: Rt. 1, Mt. Pleasant Est. Mineral Wells, WV 26150
- 9) DRILLING CONTRACTOR: Name: _____ / Address: _____
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate / Plug off old formation / Perforate new formation / Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, 475 Oriskany, Gordon, Berea
- 12) Estimated depth of completed well, 4116 feet
- 13) Approximate trata depths: Fresh, _____ feet; salt, 1300 feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes / No /

15) 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									
Fresh water	11 3/4	H-40	42	XX		110	110	to surface	Kinds
Coal									Sizes
Intermediate	8 5/8	K-55	24	XX		1929.6	1929.6	to surface	Depths set
Production	5 1/2	K-55	17	XX		4061	4061	20 sx	Perforations:
Tubing									Top Bottom
Lin.									

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-107-0766-F Date December 5 19 86

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 reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
Permit expires December 5, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

8793

Bond: <input checked="" type="checkbox"/>	Agent: <u>FLS</u>	Plat: <u>1053</u>	Casing: <u>107</u>	Fee: <u>423827</u> 15-9	WPCP: <u>Tank</u>	SSE: <u>AS</u>	Other: <u>OK MPR</u>
---	-------------------	-------------------	--------------------	----------------------------	-------------------	----------------	----------------------

NOTE: Keep one copy of this permit posted at the drilling location. Director, Division of Oil and Gas File