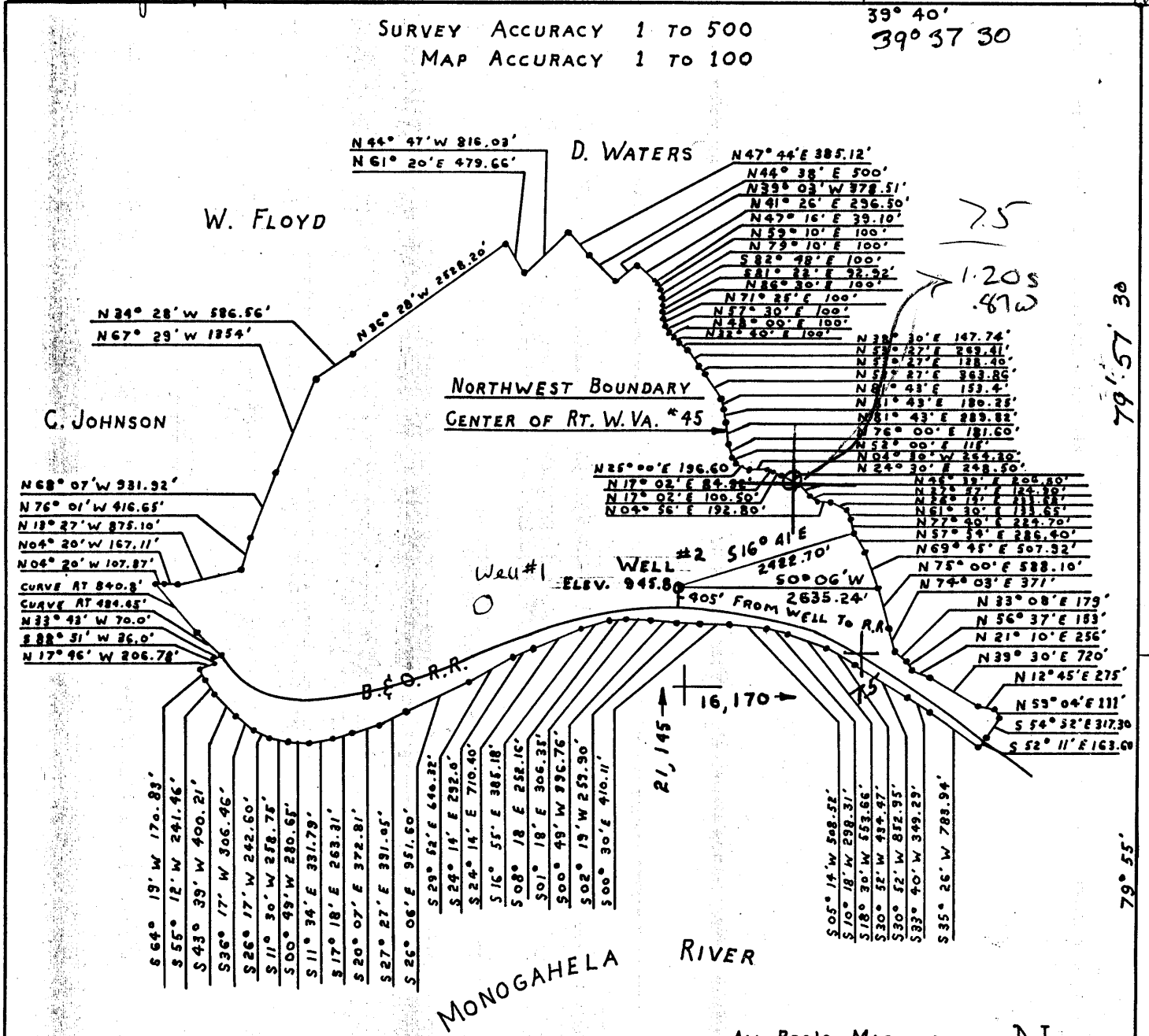


11/7/88

3700

SURVEY ACCURACY 1 TO 500
MAP ACCURACY 1 TO 100

39° 40'
39° 37' 30"



I, the undersigned, hereby certify that this map is correct to the best of my knowledge 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 W.Va.

[Signature]

Plug
 New Location
 Drill Deeper
 Abandon

FRAC
 Perkins Oil & Gas Co. Inc.
 Company Rt. 2 - Pennsboro, WVa. 26415
 Address Attn: Deryl L. Perkins (659-2136)
 Farm MORGANTOWN ORDNANCE WORKS
 Tract _____ Acres 824.65 Lease No. _____
 Well (Farm) No. _____ Serial # _____
 Elevation (Spirit Level) 945.8
 Quadrangle MORGANTOWN / Morgantown South 7.5
 County MONONGALIA District GRANT
 Engineer *[Signature]*
 Engineer's Registration No. 3165
 File No. _____ Drawing No. _____
 Date 2-21-64 Scale 1" = 2000'

State of West Virginia
 Department of Mines
 Oil and Gas Division
 Charleston

WELL LOCATION MAP

File No. MON-271-FRAC-P
 Fracture Permit Cancelled
 + 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.

47-061

1988

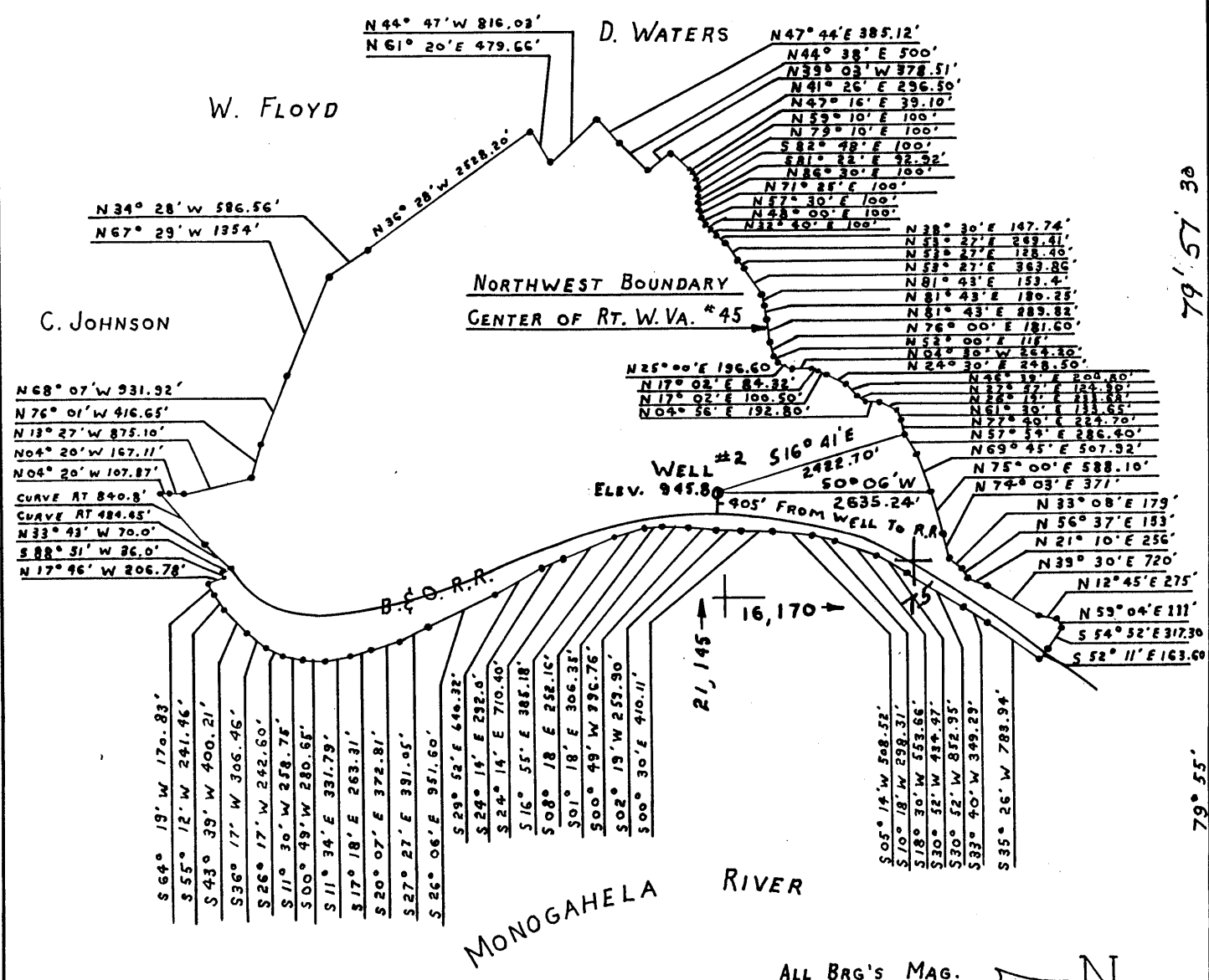
MON. 271-P

SURVEY ACCURACY 1 TO 500
 MAP ACCURACY 1 TO 100

39° 40'
 39° 37' 30"

3700

79° 57' 30"
 0508
 79° 55'



I, the undersigned, hereby certify that this map is correct to the best of my knowledge 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 W.Va.

J. D. Miller

- New Location
- Drill Deeper
- Abandonment
- FRAC.

Company BORG WARNER CHEMICALS
 Address P.O. Box 1868, PARKERSBURG, WV 26102
 Farm MORGANTOWN, ORDNANCE WORKS
 Tract _____ Acres 824.65 Lease No. _____
 Well (Farm) No. _____ Serial # _____
 Elevation (Spirit Level) 945.8
 Quadrangle MORGANTOWN/Morgantown South 7.5
 County MONONGALIA District GRANT
 Engineer J. D. Miller
 Engineer's Registration No. 3165
 File No. _____ Drawing No. _____
 Date 2-21-64 Scale 1" = 2000'

State of West Virginia
 Department of Mines
 Oil and Gas Division
 Charleston

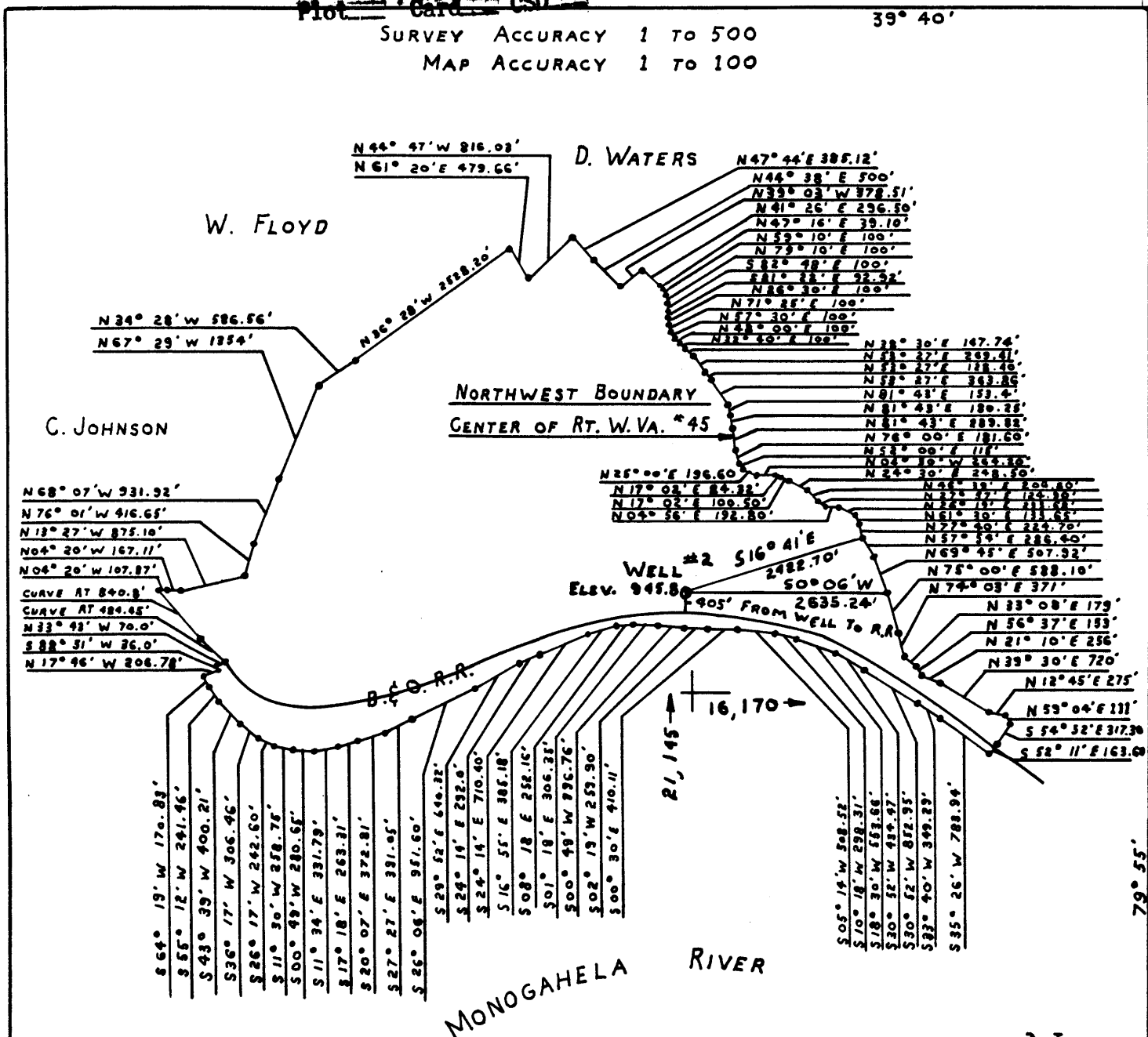
WELL LOCATION MAP
 File No. Mon-271-FRAC
 † Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.

Mon. 271 FRAC.

Plot Card CSD

SURVEY ACCURACY 1 TO 500
MAP ACCURACY 1 TO 100

39° 40'



ALL BRG'S MAG. N

I, the undersigned, hereby certify that this map is correct to the best of my knowledge 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 W.Va.

[Signature]

New Location
Drill Deeper
Abandonment
FRAC.

Company BORG WARNER CHEMICALS
Address P.O. Box 1868 Parkersburg, W.V. 26102
Farm MORGANTOWN ORDNANCE WORKS
Tract _____ Acres 824.65 Lease No. _____
Well (Farm) No. _____ Serial # _____
Elevation (Spirit Level) 945.8
Quadrangle MORGANTOWN
County MONONGALIA District GRANT
Engineer [Signature]
Engineer's Registration No. 3165
File No. _____ Drawing No. _____
Date 2-21-64 Scale 1" = 2000'

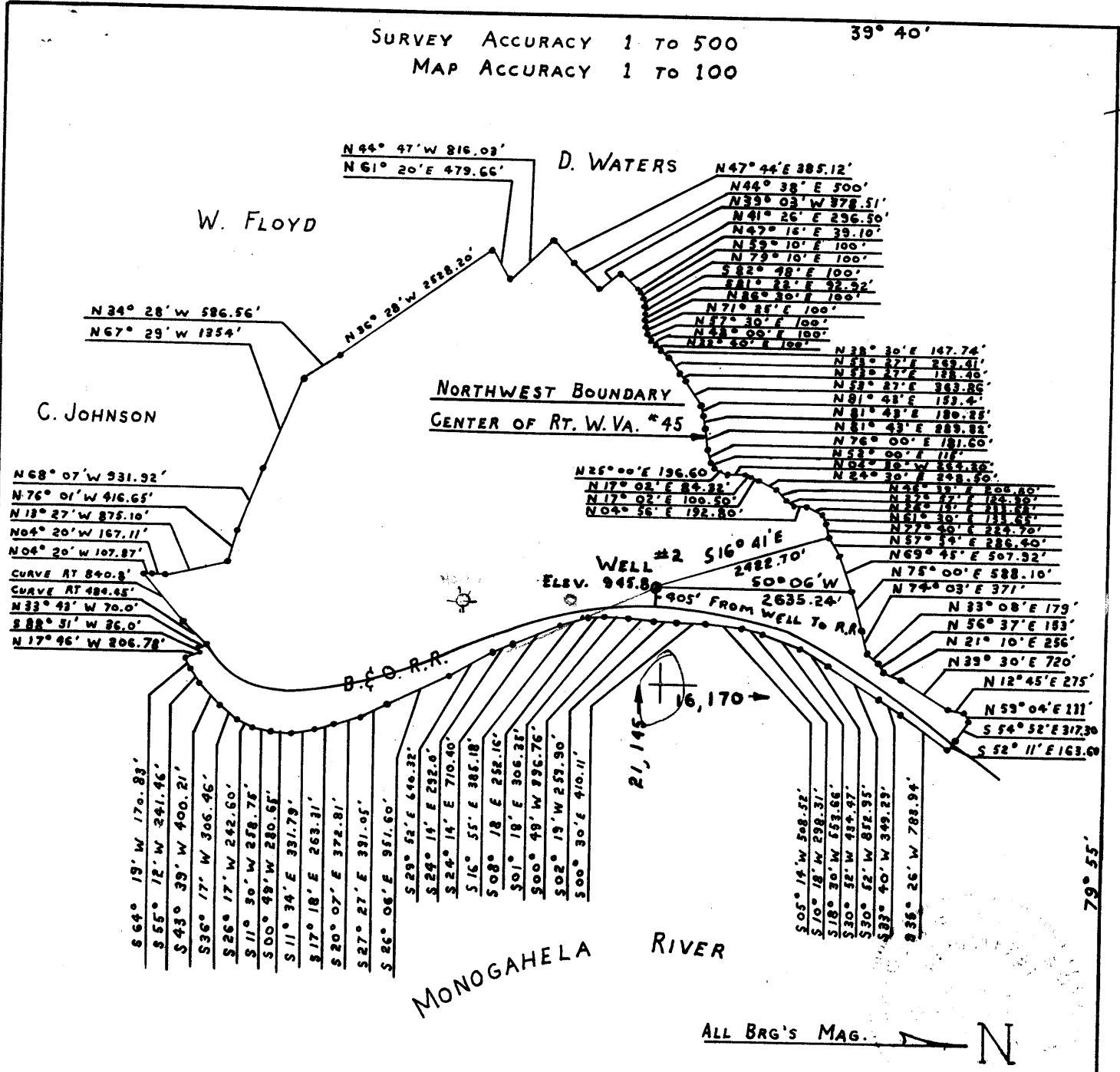
State of West Virginia
Department of Mines
Oil and Gas Division
Charleston
WELL LOCATION MAP
File No. MON-221-FRAC

↑ 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 lines of original tracing.

NOV 07 1964

SURVEY ACCURACY 1 TO 500
 MAP ACCURACY 1 TO 100

39° 40'



4.495
 2.97-W

I, the undersigned, hereby certify that this map is correct to the best of my knowledge 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 W.Va.

- New Location
- Drill Deeper
- Abandonment

Company J. W. RUBY
 Address MORGANTOWN, W. VA.
 Farm MORGANTOWN ORDNANCE WORKS
 Tract _____ Acres 824.65 Lease No. _____
 Well (Farm) No. _____ Serial # _____
 Elevation (Spirit Level) 945.8
 Quadrangle MORGANTOWN - WC
 County MONONGALIA District GRANT
 Engineer _____
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date 2-21-64 Scale 1" = 2000'

State of West Virginia
 Department of Mines
 Oil and Gas Division
 Charleston

WELL LOCATION MAP
 File No. Men-271

† 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.

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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 4

Rotary
Spudder
Cable Tools
Storage

Quadrangle Morgantown

WELL RECORD

Permit No. Mon-271

Oil or Gas Well Gas
(KIND)

Company J. W. Ruby
Address P. O. Box 798, Morgantown, West Virginia
Farm Morgantown Ordiance Works Acres 824.65
Location (waters) Monongahela River
Well No. 2 Elev. 945.8'
District Grant County Monongalia
The surface of tract is owned by J. W. Ruby
Address _____
Mineral rights are owned by J. W. Ruby
Address _____

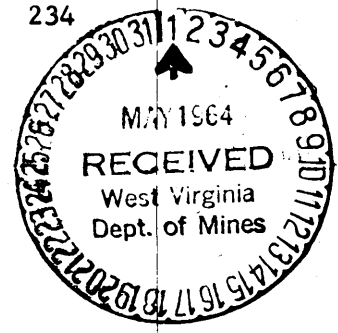
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>Disk Wall</u>
13			Size of <u>6 1/2" x 2"</u>
10	<u>46</u>	<u>46</u>	Depth set <u>1006'</u>
8 1/4	<u>304</u>	<u>304</u>	
6 5/8	<u>962'</u>	<u>962</u>	
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

Drilling commenced March 11
Drilling completed April 10
Date Shot _____ From _____ To _____
With _____
Open Flow 30 /10ths Water in 1" Inch
_____ /10ths Merc. in _____ Inch
Volume 57000 Cu. Ft.
Rock Pressure 500 lbs. 24 hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____
WELL FRACTURED no

CASING CEMENTED well SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT not treated
ROCK PRESSURE AFTER TREATMENT _____
Fresh Water _____ Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Clay	Yellow	Soft	0	46			
Sand	Gray	Hard	46	126			
Slate	Gray	Soft	126	136	Water	130	
Sand	Gray	Hard	136	153			
Slate	Gray	Soft	153	168			
Slate	Brown	Soft	168	185			
Slate	Gray	Soft	185	190			
Sand	Gray	Hard	190	217			
Slate	Gray	Soft	217	234	Water	234	
Sand	White	Hard	234	243			
Slate	Gray	Soft	243	256			
Sand	White	Hard	256	294			
Slate	Brown	Soft	294	322			
Sand	White	Hard	322	368			
Slate & Shells	Gray	Medium	368	396			
Slate	Brown	Soft	396	415			
Slate	Gray	Soft	415	445			
Sand	White	Hard	445	540			
Slate	Brown	Soft	540	553			
Sand	Gray	Hard	553	620	Water	540	Hole Full
Slate	Gray	Soft	620	626			
Lime	Gray	Hard	626	636			
Slate	Gray	Soft	636	645			
Red Rock	Red	Soft	645	660			
Slate & Shells	Gray	Medium	660	673			
Red Rock	Red	Soft	673	736			
Slate & Shells	Gray	Medium	736	747			



Formation	Color	Hard or Soft	Top 4	Bottom	Oil, Gas or Water	Depth Found	Remarks
Sand	Gray	Hard	747	804			
Slate	Gray	Soft	804	822			
Red Rock	Red	Soft	822	826			
Lime	Gray	Hard	826	854			
Pink Rock	Pink	Medium	854	868			
Slate	Gray	Soft	868	876			
Little Lime	Gray	Hard	876	901	920	1006	
Slate	Gray	Soft	901	903		946	
Lime	Gray	Hard	903	915		60	
Red Rock	Red	Soft	915	920			
Lime	Gray	Hard	920	925			
Slate	Gray	Soft	925	937			
Lime	Gray	Hard	937	1006	Show Gas	1020	
Big Injun	Gray	Hard	1006	1125	Gas	1052	47000
Slate	Gray	Soft	1125	1127	Gas	1094	470000
Sand	Gray	Hard	1127	1145	Gas		Did not
Slate & Shells	Gray	Medium	1145	1206			last
Squaw Sand	Gray	Hard	1206	1312			
Slate & Shells	Gray	Medium	1312	1457			
Sand	Gray	Hard	1457	1474			
Slate & Shells	Gray	Medium	1474	1550			
TOTAL DEPTH				1550			

Date April 28, 19 64
 APPROVED [Signature], Owner
 By [Signature] President (Title)



1) Date: September 5, 19 83
2) Operator's Well No. _____
3) API Well No. 47 - 061 - 271-FRA
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, 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: 645.8' Watershed: Monongahela River
District: Grant County: Monongahela Quadrangle: Morgantown South
- 6) WELL OPERATOR Borg Warner Chemicals DESIGNATED AGENT Arthur T. Sandy
Address P.O. Box 1868 Address P.O. Box 1868
Parkersburg, W.V. Parkersburg, W.V. 26102
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name William Blosser DRILLING CONTRACTOR:
Address Rt. 4 Box 317 Address _____
Fairmont, W.V. 26564
- 10) PROPOSED WELL WORK: Drill _____ / Drill ^{deeper} / Stimulate
Plug off old formation / Perforate new formation _____
Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Marcellus Shale Big Injun and/or Berea
- 12) Estimated depth of completed well, _____ feet
- 13) Approximate strata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No
- 15) CASING AND TUBING PROGRAM

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SEP 30 1983

OIL & GAS DIVISION
DEPT. OF MINES

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	10"	Original drilling				46'	46'	None	Kinds Disk wall
Fresh water	8-1/4"	"				304'	304'	"	Sizes 6-1/4" x 2"
Coal									
Intermediate	6-5/8"	"				962'	962'	"	
Production	4-1/2"	Proposed for stimulation					T.D.	CTS	Depths set 1006'
Tubing	2"	Original drilling					1006'		
Liners									Perforations: Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-061-0271-FRAC Date November 3, 1983

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 November 3, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BB</u>	Agent: <u>OK</u>	Plat: <u>[Signature]</u>	Casing: <u>T-5</u>	Fee: <u>201089</u>
-----------------	------------------	--------------------------	--------------------	--------------------

[Signature]
Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

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

File

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APR 12 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Morgantown Industrial Park Associates
 Coal Operator or Owner
 1000 DuPont Rd., Morgantown, WV 26504-9654
 Address
 Coal Operator or Owner
 Address
 Borg-Warner Chemicals, Inc.
 Lease or Property Owner
 P. O. Box 1868, Parkersburg, WV 26102
 Address

Perkins Oil & Gas, Inc.
 Name of Well Operator
 Rt. #2 Pennsboro, WV 26475
 Complete Address
 API No. 47-061-0271-P 12/3 19 88
 WELL AND LOCATION
 Grant District
 Monongalia County
 WELL NO. API No. 47-061-0271-P
 Borg-Warner Chemicals, Inc. Farm
 Don Ellis

STATE INSPECTOR SUPERVISING PLUGGING

AFFIDAVIT

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APR 12 1988

STATE OF WEST VIRGINIA,
 County of Ritchie
Kyle D Perkins

ss:
 and Lyle P Farley

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Perkins Oil & Gas, Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 8th day of February 19 88, and that the well was plugged and filled in the following manner:

Sand or Zone Record Formation	Filling Material	Plugs Used Size & Kind	Casing	
			CSG PULLED	CSG LEFT
Clay 0'-46'	Cement - 50 SACKS	0' To 100'		
SAND 46'-126'	Agua gel	100' To 175'		
SLATE 126'-136' H ₂ O @ 130'	Cement - 80 SACKS	175' To 304'		
SAND 234'-243' H ₂ O @ 234'	Agua gel	334' To 470'		
SAND 445'-540' H ₂ O @ 540'	Cement - 50 SACKS	470' To 575'		
Little Lime 876'-901'	Agua gel	575' To 675'		
Big Lime 931'-1006'	Cement - 30 SACKS	675' To 780'		
Big Limestone 1006'-1125' gas @ 1020'	Agua gel	780' To 870'		
	Cement - 60 SACKS	870' To 1200'		
Sand 1127'-1145'	Agua gel	1200' To 1550'		
Snow Sand 1206'-1312'				
Sand 1457'-1470'		2" Tubing w/Plunger	1006'	0'
TOTAL Depth 1550'		7" CASING	780'	182'
		8" CASING	304'	0'
		10" CASING	0'	46'
Coal Seams		Description of Monument		
(Name) No coal recorded.		Marker below surface		
(Name)		identified by attached		
(Name)		Engineer's survey plat.		
(Name)				

and that the work of plugging and filling said well was completed on the 16th day of February, 19 88.

And further deponents saith not.

Sworn to and subscribed before me this 11th day of April, 1988.
Kyle D Perkins
Lyle Farley
Notary Public

My commission expires:

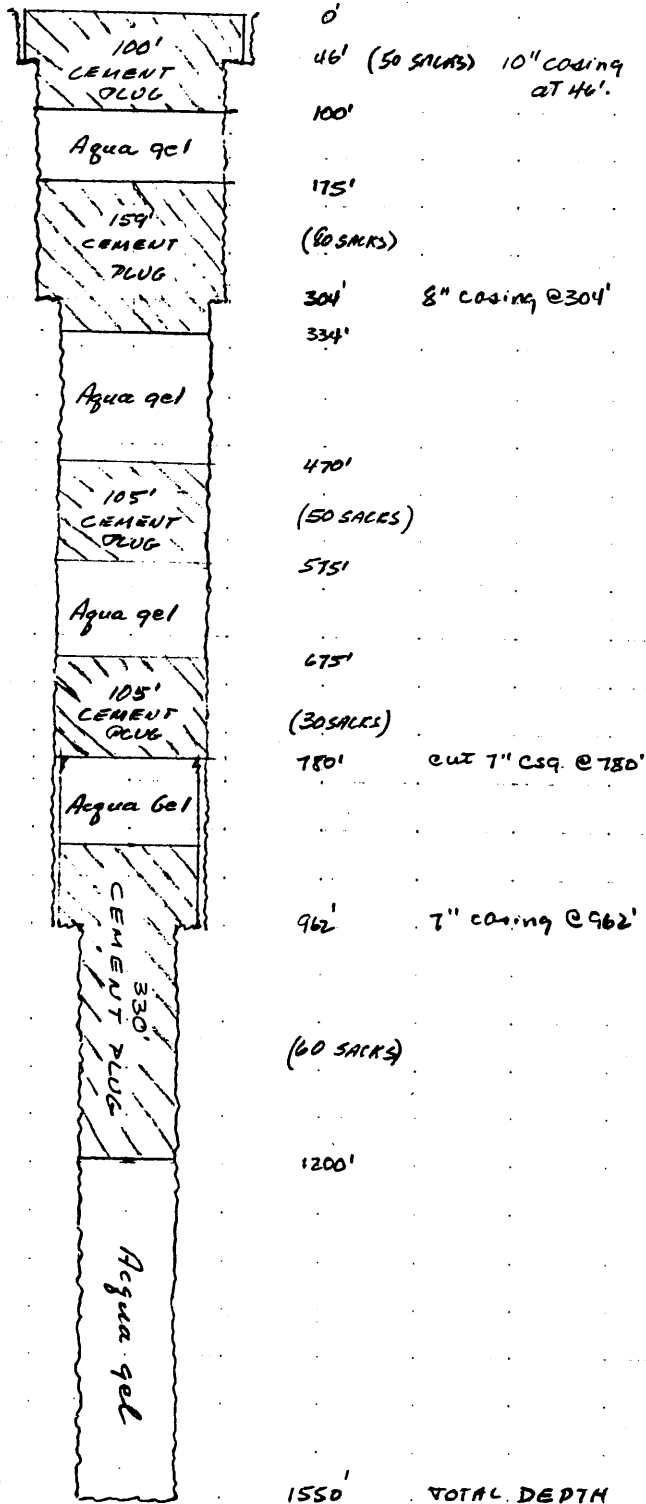
April 10, 1994

APR 15 1988

Permit No. 061 291

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Plugging API Well NO. 47-061-0271-P



- ① Released 2" Tubing packer and pulled tubing
- ② Ran 2" Tubing to Total Depth and grouted hole from 1550' to surface.
- ③ Spotted 1st. cement plug at 1200' to 870' with 60 sacks cement.
- ④ Ripped 7" casing at 780'. Pulled 780' 7" casing from hole.
- ⑤ Spotted 2nd. cement plug at 780' to 675' with 30 sacks cement.
- ⑥ Spotted 3rd. cement plug at 575' to 470' with 50 sacks cement.
- ⑦ Ripped 8" casing at 290'. Pulled 304' 8" casing from hole.
- ⑧ Spotted 4th. cement plug at 334' to 175' with 80 sacks cement.
- ⑨ Spotted 5th. cement plug at 100' to surface with 50 sacks cement.

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APR 12 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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6279