

NOTE: THIS IS ALSO THE EASTERLY LINE OF THE DRILLING UNIT FOR ANOTHER PROPOSED WELL

DRILLING UNIT ACREAGE

E.I. DUPONT	5.00 AC.
E.I. DUPONT	5.07 AC.
E.I. DUPONT	25.47 AC.
CLIFFORD C. BUTCHER	15.00 AC.
GERALD BRETHAUER	19.69 AC.
JAMES C. MCKIBBEN	30.00 AC.
TOTAL	100.23 AC.

NOTE: W.VA. RTE. 31 RIGHT-OF-WAY ACREAGE IS NOT INCLUDED IN THE DRILLING UNIT ACREAGE.

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/4" = 100'
 PROVEN SOURCE OF ELEVATION USGS EL. 866
RICHARDS Δ

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) Ralph E. Sieber
 R.P.E. _____ L.L.S. 950



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6
 (8-78)

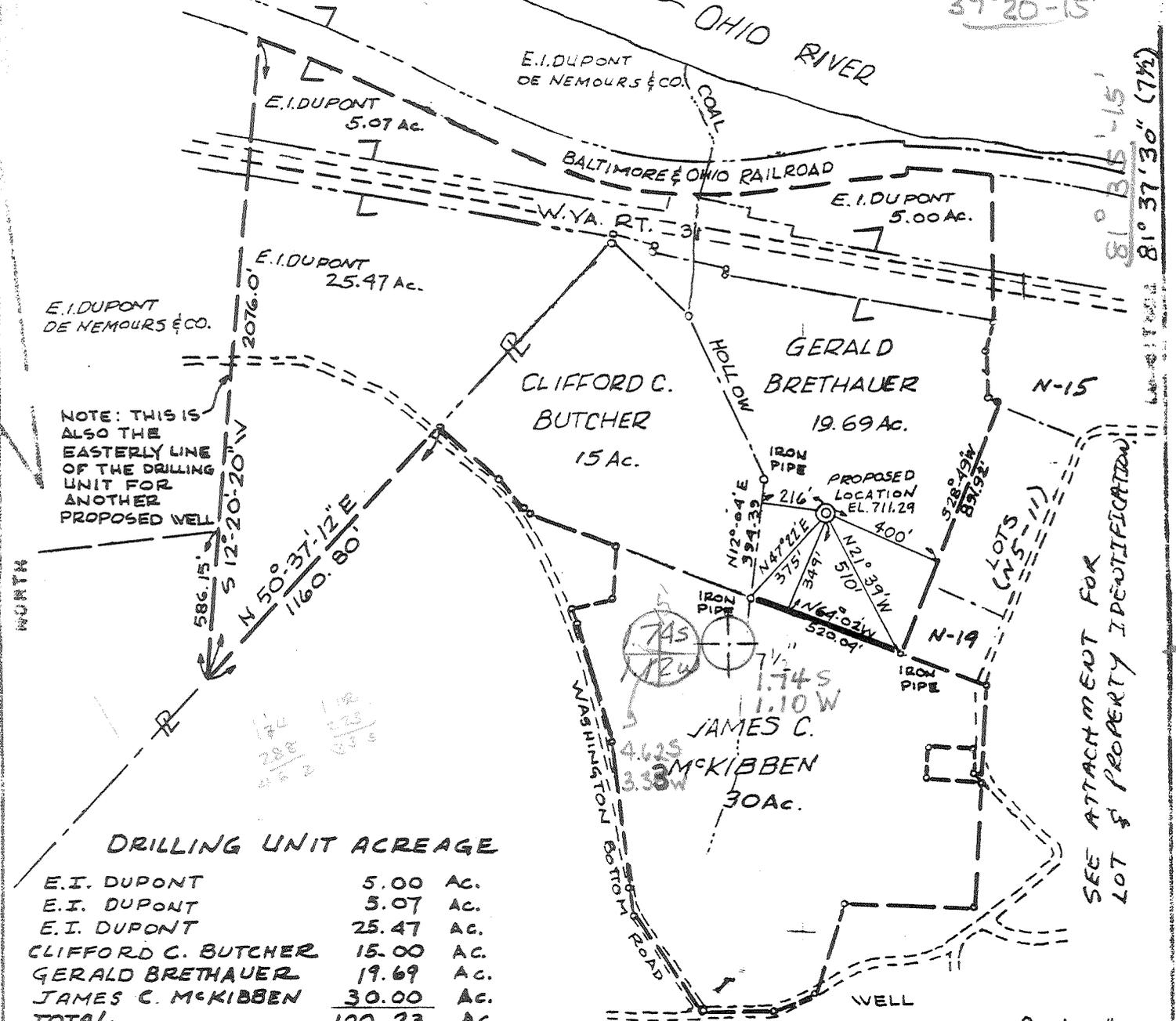


DATE JUNE 30, 1983
 OPERATOR'S WELL NOBRETHAUER
 API WELL NO. 47-107-1277
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS", PRODUCTION X STORAGE DEEP X SHALLOW
 LOCATION: ELEVATION 711.29 WATER SHED
 DISTRICT LUBECK COUNTY WOOD
 QUADRANGLE LITTLE HOCKING 7 1/2
 SURFACE OWNER GERALD BRETHAUER ACREAGE 19.69 OF 100.23 UNIT
 OIL & GAS ROYALTY OWNER SEE ABOVE LEASE ACREAGE
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR
STIMULATE PLUS OFF OLD FORMATION PERFORATE NEW
FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION ORISKANY ESTIMATED DEPTH 4500'
 WELL OPERATOR E.I. DUPONT DE NEMOURS DESIGNATED AGENT RALPH E. SIEBER, P.E.
 ADDRESS P.O. BOX 1217 ADDRESS R.P.E. NO. 7976
PARKERSBURG W.VA. 26102 E.I. DU-POINT DE NEMOURS & CO.
PARKERSBURG, W.VA 26102

83-2043

LATITUDE 39° 17' 30" (7/2)
39° 20' - 15'



NOTE: THIS IS ALSO THE EASTERLY LINE OF THE DRILLING UNIT FOR ANOTHER PROPOSED WELL

SEE ATTACHMENT FOR LOT & PROPERTY IDENTIFICATION

DRILLING UNIT ACREAGE

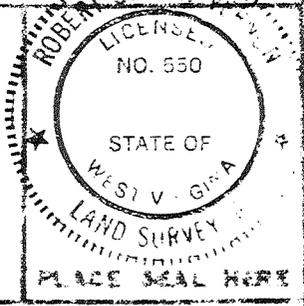
E.I. DUPONT	5.00	Ac.
E.I. DUPONT	5.07	Ac.
E.I. DUPONT	25.47	Ac.
CLIFFORD C. BUTCHER	15.00	Ac.
GERALD BRETHAUER	19.69	Ac.
JAMES C. MCKIBBEN	30.00	Ac.
TOTAL	100.23	Ac.

NOTE: W. VA. RTE. 31 RIGHT-OF-WAY ACREAGE IS NOT INCLUDED IN THE DRILLING UNIT ACREAGE.

LATITUDE 39° 15' - 56"
LONGITUDE 81° 38' - 10"

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1 PART IN 200
SOURCE OF ELEVATION USGS EL. 246
RICHARDS Δ

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) Ralph E. Sieber
R.P.E. _____ L.L.S. H. 455 D



INDICATES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
FORM M-15
10-78



DATE JUNE 30, 1983
OPERATOR'S WELL GERALD BRETHAUER
API WELL NO. 47-107-1277
STATE COUNTY PERMIT

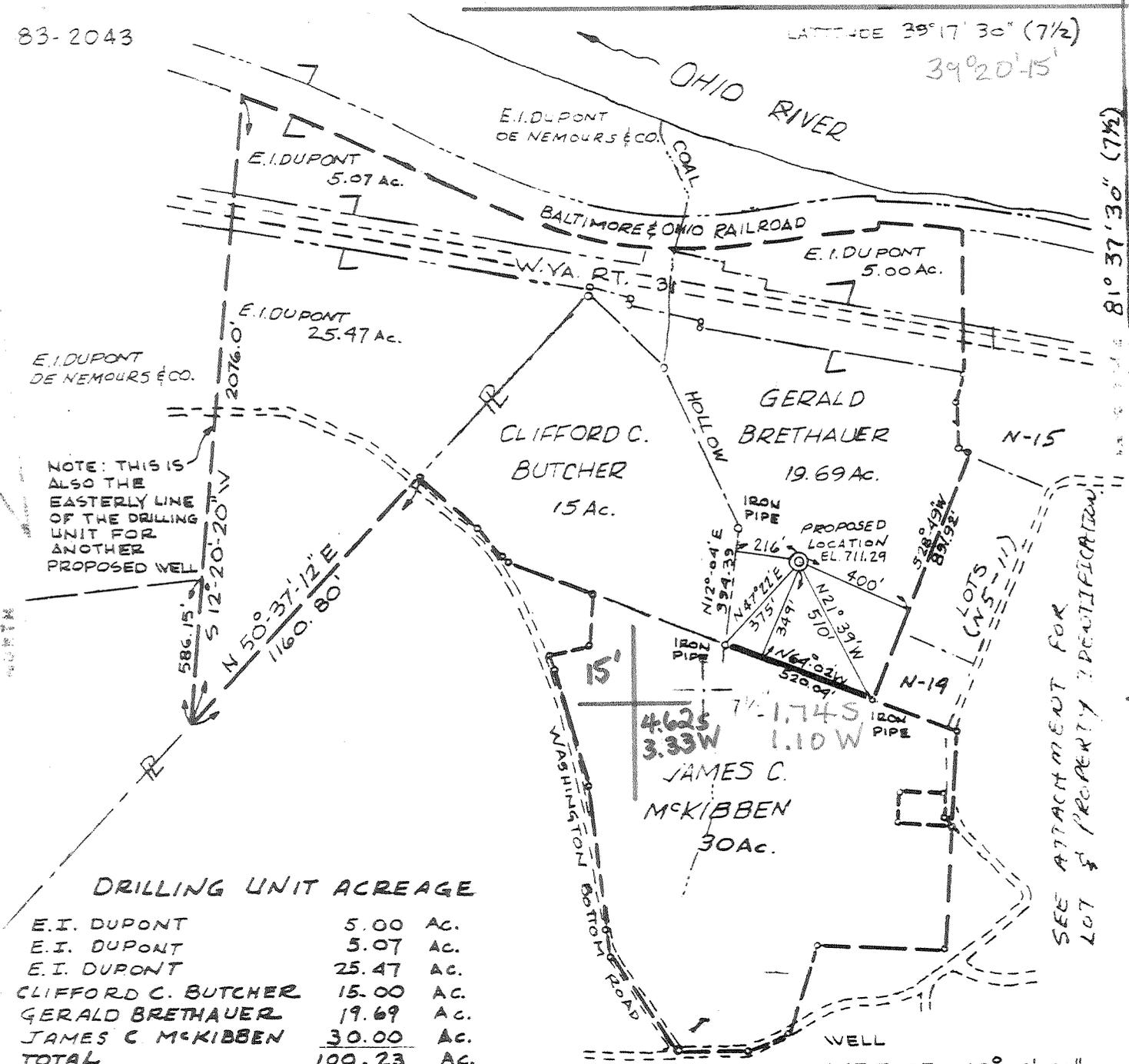
STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

(REVISED TO INCLUDE ADDITIONAL PROPERTY IDENTIFICATION) 6/30/83
Ralph E. Sieber P.E.
RPE No. 7976

WELL TYPE: OIL _____ GAS X LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF GAS, PRODUCTION X STORAGE _____ DEEP X SHALLOW _____
LOCATION, ELEVATION 711.29 WATER SHED _____
DISTRICT LUBECK COUNTY WOOD
DIAGRAMMATIC LITTLE HOCKING 7 1/2 Parkersburg 15' SC AUG 01 1983
SURFACE OWNER GERALD BRETHAUER ACREAGE 19.69 OF 100.23 UNIT
OIL & GAS ROYALTY OWNER SEE ABOVE LEASE ACREAGE _____
LEASE NO. _____
PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE FOR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUS AND REASON _____ CLEAN OUT AND REPLUS _____
TARGET FORMATION ORISKANY ESTIMATED DEPTH 4500'
WELL OPERATOR E.I. DUPONT DE NEMOURS DESIGNATED AGENT RALPH E. SIEBER, P.E.
ADDRESS P.O. BOX 1217 ADDRESS R.P.E. NO. 7976
PARKERSBURG W.VA. 26102 ADDRESS E.I. DU PONT DE NEMOURS & CO. PARKERSBURG, W.VA 26102

DEEP WELL 6-6 Washington Bottom (357) WWSK 14625



DRILLING UNIT ACREAGE

E.I. DUPONT	5.00	Ac.
E.I. DUPONT	5.07	Ac.
E.I. DUPONT	25.47	Ac.
CLIFFORD C. BUTCHER	15.00	Ac.
GERALD BRETHAUER	19.69	Ac.
JAMES C. MCKIBBEN	30.00	Ac.
TOTAL	100.23	Ac.

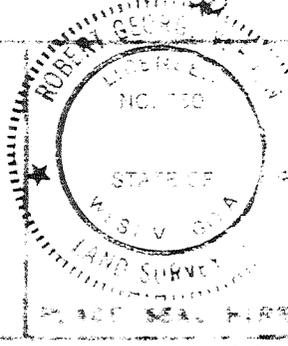
NOTE: W.V.A. RTE. 31 RIGHT-OF-WAY ACREAGE IS NOT INCLUDED IN THE DRILLING UNIT ACREAGE.

LATITUDE 39°15'56"
LONGITUDE 81°38'10"

SEE ATTACHMENT FOR LOT & PROPERTY IDENTIFICATION

SCALE 1" = 500'
MAGNETIC DEGREE OF ACCURACY 1 PART IN 200
ELEVATION 4565 EL. 266
RICHARDS &

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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) R.P.E. L.L.S. H.



DATE OF SURVEY
MAY 14 1984

DATE JUNE 30 1983
OPERATOR'S WELL GERALD BRETHAUER
API WELL NO. 47-107
STATE W.V. COUNTY WOOD PERMIT 1277-Frac

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

(REVISED TO INCLUDE ADDITIONAL PROPERTY IDENTIFICATION) 6/30/83
Ralph E. Sieber P.E.
RPE No. 7976

TYPE OF WELL WATER INJECTOR WASTE DISPOSAL
LOCATION OR ELEVATION 711.29 WATER INJECTOR DEEP SHALLOW
DISTRICT LUBECK COUNTY WOOD

LAND OWNER GERALD BRETHAUER ACREAGE 19.69 OF 100.23 UNIT
LEASE NO. SEE ABOVE LEASE ACREAGE SEE ABOVE

WELL TYPE CONVERT DRILL DEEPER REDRILL FRACURE DRILLING
PERFORATION PLUG OFF OLD FORMATION PERFORATE NEW
OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

DATE OF SURVEY MAY 14 1984
SURVEYOR RALPH E. SIEBER, P.E.
RPE No. 7976
E.I. DU PONT DE NEMOURS & CO.
PARKERSBURG, W.V.A. 26102

Deep Well 61000 C.O. Washington Bottom (357) WWSK 14625



IV-35
(Rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date December 30, 1983
Operator's
Well No. 1 G-13
Farm Brethauer
API No. 47 - 107 - 1277

RECEIVED
JAN 26 1984

WELL OPERATOR'S REPORT
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

OIL & GAS DIVISION

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

LOCATION: Elevation: 721.2 KB
711.2 GL Watershed Ohio River
District: Lubeck County Wood Quadrangle Little Hocking (7.5)

COMPANY E.I. DuPont de Nemours & Co., Inc.

ADDRESS PO Box 1217, Parkersburg, WV 26102

DESIGNATED AGENT Ralph Sieber

ADDRESS Same

SURFACE OWNER Gerald Brethauer

ADDRESS Rt. 2, Box 348A, Washington, WV

MINERAL RIGHTS OWNER Same

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK _____

J. Tephabock ADDRESS Ripley, WV

PERMIT ISSUED June 30, 1983

DRILLING COMMENCED 8/3/83

DRILLING COMPLETED 8/13/83

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" 9 5/8	280	280	To surface
8 5/8	2053	2053	To surface
7			
5 1/2	4560	4560	288 Sks.
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 4500 feet

Depth of completed well 4560 feet Rotary x / Cable Tools _____

Water strata depth: Fresh _____ feet; Salt _____ feet

Coal seam depths: None reported Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Oriskany Pay zone depth 4290-4308 feet

Gas: Initial open flow _____ Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 100 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1500 psig (surface measurement) after 4 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

FEB 14 1984

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
 Perforated 4290'-4308' (4 SPF) (Oriskany) - Acidized w/ 500 gal. 15% HCl and fractured
 with 800 bbls. crosslinked gel with 81,000# sand. Breakdown @ 2890 psi.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Surface			0	25	From well logger
Shale			25	195	
Sand			195	220	
Shale			220	340	
Sand			340	385	
Shale			385	410	
Sandy shale			410	540	
Shale			540	850	
Sand			850	895	
Shale			895	960	
Sand			960	1010	
Shale			1010	1100	
Sand			1100	1150	
Shale			1150	1200	
Sand			1200	1220	
Shale			1220	1440	
Sand			1440	1570	
Shale			1570	1942	From Log
Shale-siltstone			1942	4190	
Limestone, Chert			4190	4280	
Sandstone			4280	4310	T.D.
Limestone			4310	4560	

Oriskany
Helderberg @ TD

(Attach separate sheets as necessary)

E. I. DUPONT DE NEMOURS & CO., INC.

Well Operator

By: R. J. Silber

Date: December 30, 1983

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



1) Date: April 25, 19 84
 2) Operator's Well No. G-13
 3) API Well No. 47 - 107 - 1277-FRAC
 State County Permit

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

OIL & GAS DIVISION
 DEPT. OF MINES

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow /)
- 5) LOCATION: Elevation: 711.2 GL Watershed: Ohio River
 District: Lubeck County: Wood Quadrangle: Little Hocking (7.5)
- 6) WELL OPERATOR E. I. du Pont De Nemours & Co., 7) DESIGNATED AGENT Phillip M. Shannon
 Address P. O. Box 1217, Parkersburg, WV 26102 Inc. Address Same
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name _____ Address _____
 9) DRILLING CONTRACTOR: Name Undecided Address _____
- 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well (specify) Set a 5 1/2" CIBP above Orisk. ~~XXXXXXXXXXXX~~
- 11) GEOLOGICAL TARGET FORMATION, Devonian Shale (proposed) Perf. & frac the Dev. Shale.
- 12) Estimated depth of completed well, Plug-back @ 4250' feet (proposed)
- 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: None 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	11 3/4	H-40	42	X		280	280	To surf.	Kinds None in new comp tion
Fresh water									Sizes 5 1/2" Baker AL-2
Coal									4270 presently
Intermediate	8 5/8	K-55	24	X		2053	2053	To surf.	Depths set
Production	5 1/2	K-55	15.5	X		4560	4560	288 sks.	Perforations: Top 4290 Bottom 4308 (at present)
Tubing								(T/cmt=2856')	
Liners									3331-3620 w/ 30 shot: (proposed)

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-107-1277-FRAC Date May 4, 19 84

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 May 4, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: ✓	Plat:	Casing:	Fee:
<u>Blanket</u>	<u>MH</u>	<u>MH</u>	<u>T.S</u>	<u>319-19243</u>

Administrator, Office of Oil and Gas

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



IV-35
(Rev 8-81)

RECEIVED
SEP 7 - 1984

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date August 16, 1984
Operator's
Well No. G-13
Farm -
API No. 47 - 107 - 1277 FRAC

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

RECEIVED
OCT 18 1984

OIL & GAS DIVISION
DEPT. OF MINES

WELL TYPE: Oil ___ / Gas x / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production ___ / Underground Storage ___ / Deep ___ / Shallow 0)

LOCATION: Elevation: 711.2 GL Watershed Ohio River
District: Lubeck County Wood Quadrangle Little Hocking (7.5)

COMPANY E. I. du Pont de Nemours & Co., Inc.

ADDRESS P. O. Box 1217, Parkersburg, WV 26102

DESIGNATED AGENT Phillip M. Shannon

ADDRESS Same

SURFACE OWNER Linda Brethauer

ADDRESS Rt. 2, Box 348A, Washington, WV 26181

MINERAL RIGHTS OWNER Same

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK _____

Tephabock ADDRESS Ripley, WV

PERMIT ISSUED May 4, 1984

DRILLING COMMENCED May 17, 1984 (Workover)

DRILLING COMPLETED July 5, 1984

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

For casing record, see attached "IV-35"

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
11 3/4 13-19 "	Unchanged		
9 5/8			
8 5/8	Unchanged		
7			
5 1/2	Unchanged		
4 1/2			
3			
2 (The)	297	3297	-
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth: - feet

Depth of completed well Plugback 4150 feet Rotary - / Cable Tools -

Water strata depth: Fresh - feet; Salt - feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3329-3618 feet

Gas: Initial open flow 7 Mcf/d Oil: Initial open flow - Bbl/d

Final open flow 5 Mcf/d Final open flow - Bbl/d

Time of open flow between initial and final tests - hours

Static rock pressure 420 psig (surface measurement) after 24 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

NOV 13 1984

(Continue on reverse side)

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

Attempted to pull packer at 4270': would not release. Chemically-cut 2 7/8" tubing at 4211' and left packer and 59' of tubing in hole. Set bridge plug at 4150'. Perforated the "Ohio" Shale at 3329-3618 (overall) with 30 shots total. Ran 2 3/8" to 3297'. Stimulated the completed interval with 300 gals 15% HCl and 30,300 gals. of 90-quality foam and 20,200 lbs. of 20/40 Sand. After a two-week flow-back period, two days of swabbing were attempted to recover remaining load water and to initiate improved flow.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas

(Attach separate sheets as necessary)

E. I. du Pont de Nemours & Co., Inc.
 Well Operator
 By: *Phillip M. Shannon*
 Phillip M. Shannon
 Date: September 4, 1984

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."

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

RECEIVED
JUN - 20 1986

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, 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.

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

None
Coal Operator or Owner
Address
Coal Operator or Owner
Address
Linda Brethauer
Lease or Property Owner
Rt. 2, Box 380A, Washington, WV 26181
Address

E. I. du Pont de Nemours & Co., Inc.
Name of Well Operator
P. O. Box 1217 Parkersburg, WV 26102
Complete Address
May 12 19 86
WELL AND LOCATION
Lubeck District
Wood County
WELL NO. 47-107-1277
Linda Brethauer Farm

STATE INSPECTOR SUPERVISING PLUGGING Glen P. Robinson

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Wood ss:

Peter B. Vining and Roy Benjamin Garner

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 E. I. du Pont de Nemours & Co. Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 28 day of April, 19 86, 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 IN
3300'-2995'	Cement (34 sacks)			1760'
2995'-2805'	Bentonite Gel			of 5-1/2"
2805'-2700'	Cement (30 sacks)		2805'	
2700'-2100'	Bentonite Gel		of 5-1/2"	
2100'-2000'	Cement (30 sacks)			2053'
2000'-50'	Bentonite Gel			of 8-5/8"
50'-0'	Cement (17 sacks)		280'	of 11-3/4"
Coal Seams				
(Name)		Description of Monument		
(Name)		36"x7" O.D. cemented pipe		
(Name)		Brethauer No. 1 G-13		
(Name)		API 47-107-1277		

and that the work of plugging and filling said well was completed on the 1 day of May, 19 86.

And further deponents saith not.

Sworn to and subscribed before me this 24th day of May, 19 86.

Peter B. Vining
Roy B. Garner
Notary Public

My commission expires:
Apr 10, 1994



1) Date: June 30, 19 83
 2) Operator's Well No. Brethauer No. 1 (G-13)
 3) API Well No. 47 - 107 1277
 State _____ County _____ Permit _____

DRILLING CONTRACTOR:
FMA Drilling Co.

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production X / Underground storage _____ / Deep X / Shallow _____ /)
- 5) LOCATION: Elevation: 711.29 / Watershed: Ohio River
 District: Lubeck / County: Wood / Quadrangle: Little Hocking, OH-WV
- 6) WELL OPERATOR E. I. du Pont de Nemours & Co. 11) DESIGNATED AGENT Ralph E. Sieber
 Address P. O. Box 1217 Address E. I. du Pont de Nemours & Co.
Parkersburg, WV 26102 P. O. Box 1217
Parkersburg, WV 26102
- 7) OIL & GAS ROYALTY OWNER (See Attachment) 12) COAL OPERATOR None
 Address _____ Address _____
- 8) SURFACE OWNER Gerald & Linda Brethauer 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address Rt. 2, Box 348A Name None
Washington, WV Address _____
 Acreage 20 Ac. Name _____
 Address _____
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name _____ Address _____
- 15) PROPOSED WORK: Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate X /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Oriskany S.S.
 17) Estimated depth of completed well, 4500 feet
 18) Approximate water strata depths: Fresh, 50 feet; salt, 1550 feet.
 19) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No _____ /

20) 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	<u>11-3/4</u>	<u>K-40</u>	<u>42#</u>	<u>X</u>		<u>250'</u>	<u>250'</u>	<u>140 SK.</u> <u>(10 surf.)</u>		Kinds
Fresh water										
Coal										Sizes
Intermediate	<u>8-3/8</u>	<u>K-55</u>	<u>24#</u>	<u>X</u>		<u>2100'</u>	<u>2100'</u>	<u>420 SK.</u>		
Production	<u>5-1/2</u>	<u>K-55</u>	<u>15.5#</u>	<u>X</u>		<u>4300'</u>	<u>4300'</u>	<u>420 SK.</u>		Depths set
Tubing	<u>2-3/8</u>	<u>EUE</u>		<u>X</u>		<u>4500'</u>	<u>4500'</u>			
Liners										Perforations: Top Bottom

- 21) EXTRACTION RIGHTS
 Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: _____ Signed: Ralph E. Sieber
 My Commission Expires _____ Its: Designated Agent

OFFICE USE ONLY
DRILLING PERMIT

Permit number _____ 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. 10) 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.)

Permit expires July 28, 1985 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
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Administrator, Office of Oil and Gas