

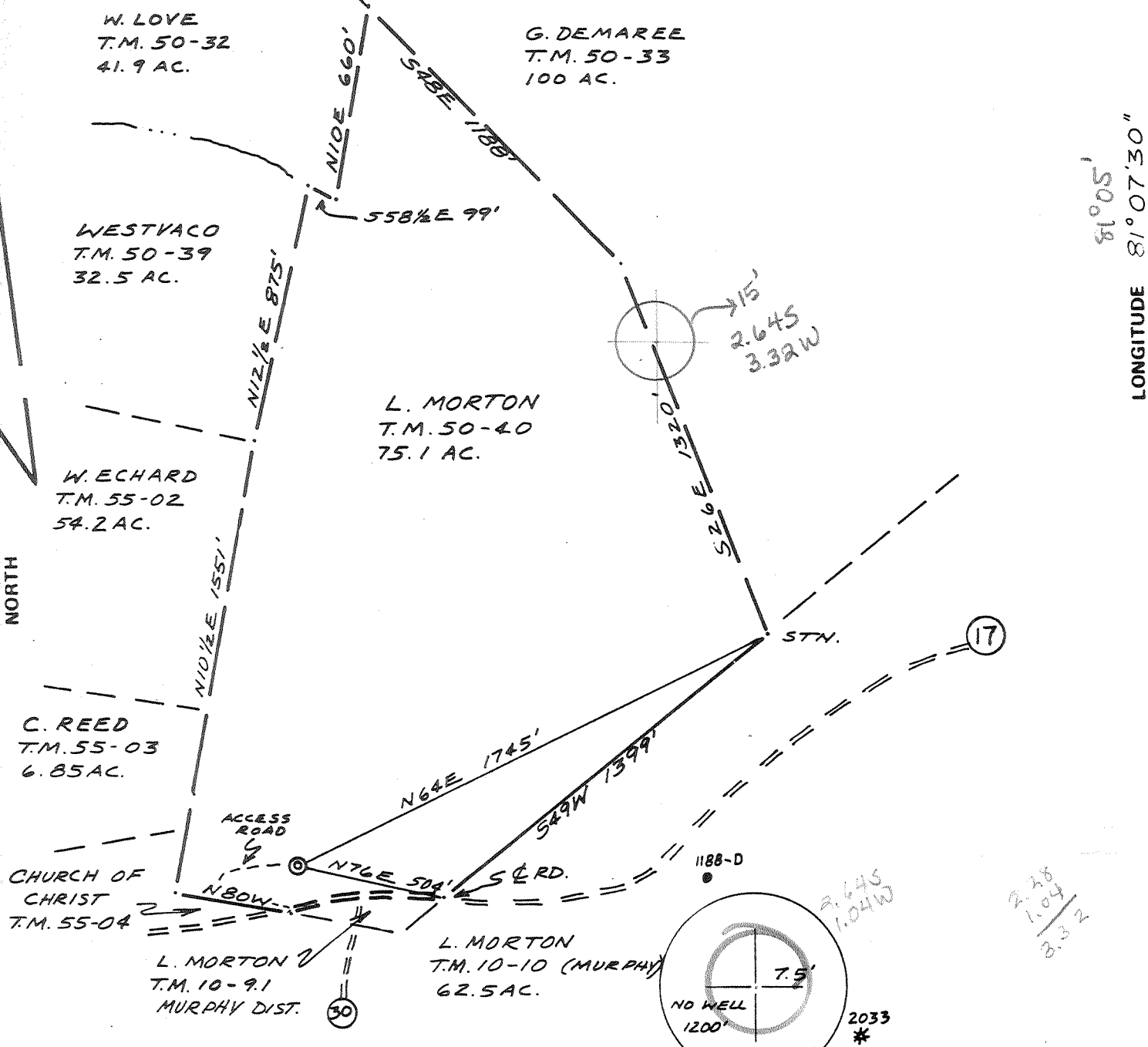
B 5 12-6-81

5,450'

LATITUDE 39° 10'

LONGITUDE 81° 07' 30"

13,900'



FILE NO. 81-45  
 DRAWING NO. 2  
 SCALE 1"=500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION RD. 1089'

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) Neal Hughes  
 R.P.E. \_\_\_\_\_ L.L.S. 632

PLACE SEAL HERE

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



DATE DEC. 1, 19 81  
 OPERATOR'S WELL NO. 1  
 API WELL NO. 47-085-5404  
 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 \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
 LOCATION: ELEVATION 1055' WATER SHED DEVILHOLE CREEK  
 DISTRICT GRANT COUNTY RITCHIE  
 QUADRANGLE CAIRO 7.5' HARRISVILLE 15' C  
 SURFACE OWNER L. MORTON ACREAGE 75.1  
 OIL & GAS ROYALTY OWNER C. VALENTINE LEASE ACREAGE 75.1  
 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 MARCELLUS ESTIMATED DEPTH 5,500  
 WELL OPERATOR PANTHER FUEL CO. DESIGNATED AGENT DONNOLLY VILLERS  
 ADDRESS P.O. BOX 245 ADDRESS PO BOX 647  
SHINNSTON, W.V. 26431 WESTON, W.V.A. 26452

JAN - 8 1982



IV-35  
(Rev 8-81)

Date August 12, 1982  
Operator's  
Well No. One (1)  
Farm C. Valentine.  
API No. 47 - 085 - 5404

State of West Virginia  
Department of Mines  
Oil and Gas Division

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

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

LOCATION: Elevation: 1,050 Watershed Devilhole of Hughes River  
District: Grant County Ritchie Quadrangle Cairo 7.5'

COMPANY PANTHER FUEL COMPANY

ADDRESS P. O. Box 850, Bridgeport, WV 26330

DESIGNATED AGENT DONNALLY VILLERS

ADDRESS P. O. Box 647, Weston, WV 26452

SURFACE OWNER Lawrence Morton

ADDRESS Rt. #1, Box 237, Harrisville, WV

MINERAL RIGHTS OWNER Clifton Valentine

ADDRESS North Royalton, Ohio

OIL AND GAS INSPECTOR FOR THIS WORK Doe

Mace ADDRESS Sandridge, WV

PERMIT ISSUED December 1, 1981

DRILLING COMMENCED January 3, 1982

DRILLING COMPLETED January 24, 1982

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.			
13-10"			
9 5/8			
8 5/8	1,095	1,095	to surface
7			
5 1/2			
4 1/2		4,611	
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Braillier Shale Depth    feet

Depth of completed well 4,180 feet Rotary X / Cable Tools   

Water strata depth: Fresh 85 feet; Salt 977 feet

Coal seam depths:    Is coal being mined in the area?   

OPEN FLOW DATA

Producing formation Huron Braillier Shale Pay zone depth 4,180 feet

Gas: Initial open flow Show Mcf/d Oil: Initial open flow Show Bbl/d

Final open flow 50 Mcf/d Final open flow 5 Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 640 psig (surface measurement) after 72 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

RITCHIE 5404

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

Halliburton 1,018,000 N<sub>2</sub> 6 High Volume

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Soil			-0-	80	
Big Lime			1,870	1,990	
Big Injun			1,990	2,112	Gas
Gordon Sand			2,713	2,782	Gas
Fifth Sand			2,856	2,868	Gas & Oil
Warren Sand			3,000	3,280	Gas & Oil
Braillier Shale			3,540	4,190	Gas & Oil
Shale			4,190	4,656	TD Huron @ TD

4656  
2500 ~ Beres  
2156

(Attach separate sheets as necessary)

PANTHER FUEL COMPANY  
Well Operator

By: [Signature] Vice President

Date: 11/17/55

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  
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil  Gas

(If "Gas", Production  Underground storage \_\_\_ / Deep \_\_\_ / Shallow \_\_\_)

LOCATION: Elevation: 1050 Watershed: Devilhole Creek  
District: Grant County: Ritchie Quadrangle: CAIRO 7.5'

WELL OPERATOR PANTHER FUEL COMPANY  
Address P.O. Box 245  
SHINNSTON, W.VA 26431

DESIGNATED AGENT Donnelly Vickers  
Address P.O. Box 647  
WESTON, W.Va. 26452

OIL AND GAS ROYALTY OWNER Clifton Valentine  
Address 4459 EDGERTON Rd.  
N. Royalton, Ohio 44133  
Acreage 75 1/2

COAL OPERATOR  
Address \_\_\_\_\_

SURFACE OWNER Lawrence Morton  
Address Pt. 1 P.O. Box 237  
HARRISVILLE, W.Va  
Acreage 75 1/2

COAL OWNER(S) WITH DECLARATION ON RECORD:  
NAME \_\_\_\_\_  
Address \_\_\_\_\_

FIELD SALE (IF MADE) TO:  
NAME \_\_\_\_\_  
Address \_\_\_\_\_

NAME \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
NAME \_\_\_\_\_  
Address \_\_\_\_\_

OIL AND GAS INSPECTOR TO BE NOTIFIED:  
NAME \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone \_\_\_\_\_

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_ / lease  other contract \_\_\_ / dated \_\_\_\_\_, 19\_\_\_, to the undersigned well operator from \_\_\_\_\_.

(If said deed, lease, or other contract has been recorded:)

Recorded on 10-4-, 1981, in the office of the Clerk of County Commission of

Ritchie County, West Virginia, in 139 Book at page 150. A permit is requested as follows:

PROPOSED WORK: Drill  Drill Deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_ / Plug off old formation \_\_\_ / Perforate new formation \_\_\_ / Other physical change in well (specify) \_\_\_\_\_

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. 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 lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1613 WASHINGTON ST., E.  
CHARLESTON, WV 25311  
Telephone = 304/348-3092

PANTHER FUEL COMPANY  
Well Operator  
By: Donnelly Vickers  
Its: \_\_\_\_\_

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DILLING CONTRACTOR (IF KNOWN) EASTERN Overthrust Drilling Inc.  
Address Brushy Fork  
Finmore, W. Va.

GEOLOGICAL TARGET FORMATION MARCELLUS Shale  
Estimated depth of completed well 5950 feet. Rotary 1 / Cable tools 1 /  
Approximate water strata depths: Fresh,          feet; salt,          feet.  
Approximate coal seam depths:           
Is coal being mined in this area: Yes 1 / No 1

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL- UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drilling	Left in Well		
Conductor	<u>11 3/4</u>				<input checked="" type="checkbox"/>				Kinds
Fresh water									
Coal									Sizes
Intermed.	<u>8 5/8</u>		<u>20</u>	<input checked="" type="checkbox"/>		<u>1000</u>		<u>240</u>	
Production	<u>4 1/2</u>		<u>10.5</u>	<input checked="" type="checkbox"/>		<u>5950</u>		<u>AS NEEDED</u>	Depths set
Tubing									
Liners									Perforations: Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.  
A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.  
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 8-7-82  
Fred Brubaker  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator          / owner          / lessee          / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the coal operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date:         , 19         .  
By:           
Its: