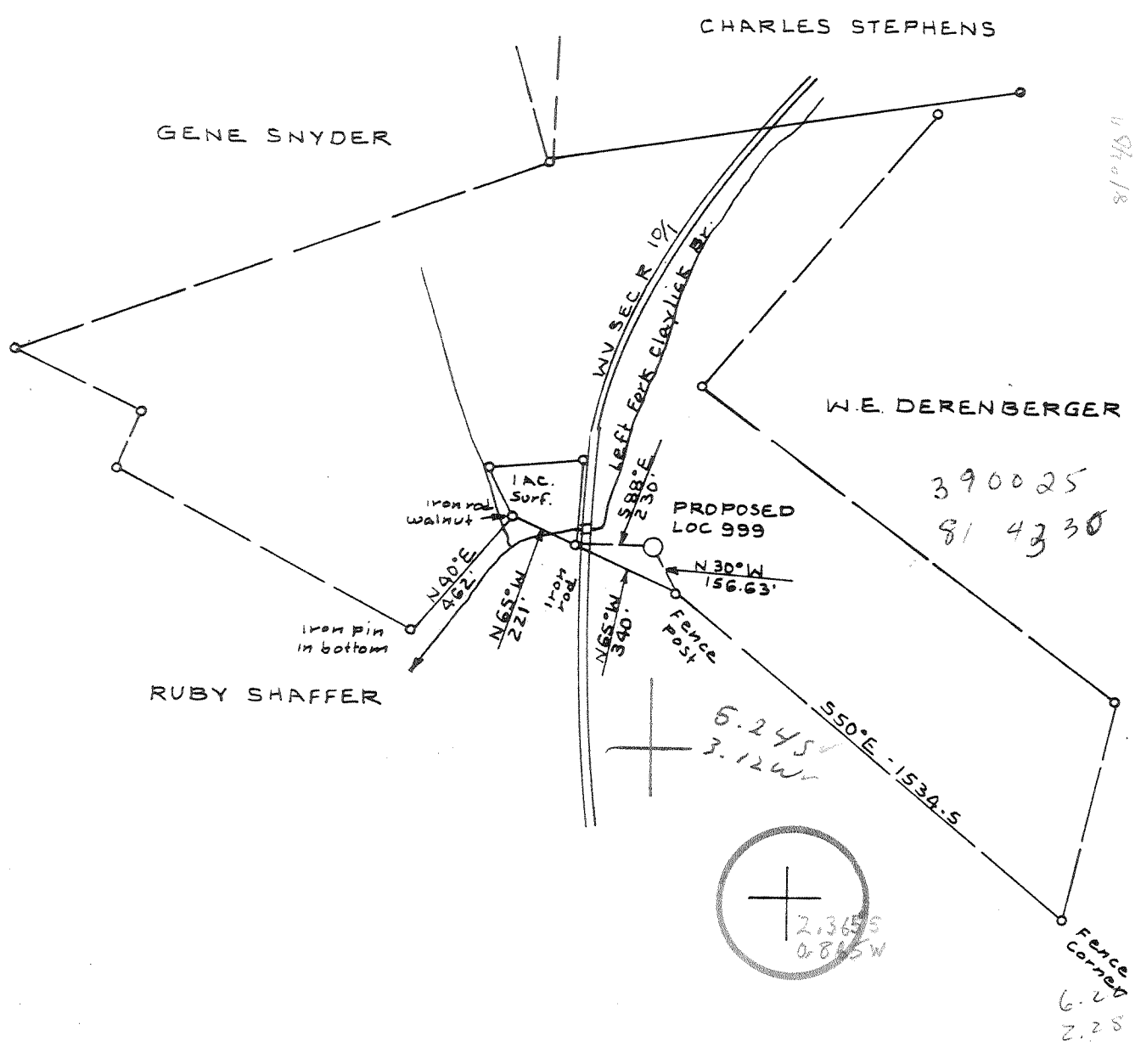


NORTH



FILE NO. B 64 P 13  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1-200  
 PROVEN SOURCE OF ELEVATION USGS Intersection Sec Rt 19 1/2 E 1602.0' 2700' South of Loc.

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) C. J. Volley Jr.  
 R.P.E. \_\_\_\_\_ C.L.S. 92

PLACE SEAL HERE

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



DATE SEPT 5, 1981  
 OPERATOR'S WELL NO. 999  
 API WELL NO. \_\_\_\_\_  
47 - 035 - 1614  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE X DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 674.30 WATER SHED LEFT FORK CLAYLICK BRANCH  
 DISTRICT GRANT COUNTY JACKSON  
 QUADRANGLE POND CREEK OHIO-WVA 7.5' Belman 15' 80  
 SURFACE OWNER PHILLIP BOGESS ACREAGE 80  
 OIL & GAS ROYALTY OWNER H.E. HOWARD LEASE NO. 4197 LEASE ACREAGE 80  
 PROPOSED WORK: DRILL X 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 CRISKANY ESTIMATED DEPTH 4500  
 WELL OPERATOR DEVON ENERGY CORP DESIGNATED AGENT ARTHUR C. YOUSE  
 ADDRESS P.O. Box 1433 ADDRESS P.O. Box 1433  
CHARLESTON WVA. 25325 CHARLESTON, WVA. 25325

OCT 13 1981

Deep Well & NEPTUNE

255



IV-35  
(Rev 8-81)

Date January 15, 1982  
Operator's \_\_\_\_\_  
Well No. #999  
Farm H. E. Howard  
API No. 47 - 035 - 1614

**RECEIVED**

State of West Virginia  
Department of Mines  
Oil and Gas Division

MAR 26 1982

OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES

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 X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 674.30 Watershed Left Fork of Clay Lick Run  
District: Grant County Jackson Quadrangle Pond Creek 7-1/2

COMPANY DEVON ENERGY CORPORATION  
ADDRESS PO Box 1433, Charleston, W. Va. 25325  
DESIGNATED AGENT Arthur C. Youse  
ADDRESS Box 1433, Charleston, W. Va. 25325  
SURFACE OWNER Philip C. Boggess  
ADDRESS 844 Chappell Rd., Charleston, W. Va.  
MINERAL RIGHTS OWNER H. E. Howard  
ADDRESS Rt. 1, Box 19, Sherman, W. Va. 26173  
OIL AND GAS INSPECTOR FOR THIS WORK Richard Morris  
ADDRESS Grantsville, W. Va.  
PERMIT ISSUED September 30, 1981  
DRILLING COMMENCED November 11, 1981  
DRILLING COMPLETED November 16, 1981

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
19-10"	244	244	To surface
9 5/8			
8 5/8			
7	1711	771	630 feet
5 1/2			
4 1/2		4467	1882 feet
3			
2			
Liners used			

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

GEOLOGICAL TARGET FORMATION Oriskany Sand Depth 4500 feet  
Depth of completed well 4516 feet Rotary XX / 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 Devonian Brown Shale Pay zone depth 3625-3745 feet  
Gas: Initial open flow 25 Mcf/d Oil: Initial open flow -0- Bbl/d  
Final open flow 152 Mcf/d Final open flow -0- Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 810 psig (surface measurement) after 48 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

APR 16 1982

(Continue on reverse side)

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

Performed 4-1/2" casing 3555-3680 with 26 shots.

Fractured Brown Shale with 338 bbls. water, 75,000# sand and 375,000 SCF nitrogen.

INFORMATION ON THIS PAGE APPLIES TO JAC 1615

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Shale			0	352	
Sand			352	420	
Shale			420	485	
Sand			485	530	
Shale			530	603	
Sand			603	633	
Shale			633	917	
Sand			917	967	
Shale			967	1060	
Sand			1060	1117	
Shale			1117	1145	
Sand			1145	1219	
Shale			1219	1505	
Big Lime			1505	1592	
Shale			1592	2027	
Coffee Shale			2027	2045	
Berea Sand			2045	2047	
Gray Shale			2047	3185	
Brown Shale			3185	3681	
Gray Shale			3681	4062	
Marcellus Shale			4062	4241	
Onondaga L. S.			4241	4346	
Oriskany Horizon				4346	
Helderberg L. S.			4346	4431	
Log Total Depth				4431	

(Attach separate sheets as necessary)

DEVON ENERGY CORPORATION

Well Operator

By:

*Arthur C. Youse*

Arthur C. Youse, Area Expl. Mgr.

Date:

January 14, 1982

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."

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

Perforated 4-1/2" casing 3625' to 3745' with 25 shots.

Fractured Brown Shale with 365 bbls. water, 85,000# sand and 558,000 SCF nitrogen.

0351614

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Shale			0	30	
Sand			30	45	
Shale			45	155	
Sand			155	210	
Shale			210	395	
Sand			395	475	
Shale			475	523	
Sand			523	579	
Shale			579	682	
Sand			682	710	
Shale			710	743	
Sand			743	763	
Shale			763	953	
Sand			953	1027	
Shale			1027	1100	
Sand			1100	1158	
Shale			1158	1183	
Sand			1183	1263	
Shale			1263	1380	
Sand			1380	1400	
Shale			1400	1466	
Sand			1466	1484	
Shale			1484	1502	
Big Lime			1502	1644	
Shale			1644	1971	
Coffee Shale			1971	1992	
Berea Sand			1992	1996	
Gray Shale			1996	3245	
Brown Shale			3245	3751	
Gray Shale			3751	4137	
Marcellus Shale			4137	4324	
Onondaga L. S.			4324	4429	
Oriskany Sand			4429	4436	
Helderberg L. S.			4436	4516	
Log Total Depth				4516	

(Attach separate sheets as necessary)

DEVON ENERGY CORPORATION

Well Operator

By: A. C. Youse

A. C. Youse, Area Expl. Mgr.

Date: January 15, 1982

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."



WELL NO. 999

FARM H. E. Howard

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

DATE 9/3, 1981

OIL AND GAS WELL PERMIT

WELL TYPE: Oil \_\_\_\_\_ / Gas X /  
(If "Gas", Production X / Underground storage \_\_\_\_\_ / Deep X / Shallow \_\_\_\_\_)

LOCATION: Elevation: 674.30 Watershed: Left Fork of Clay Lick Run  
District: Grant County: Jackson Quadrangle: Pond Creek

WELL OPERATOR DEVON ENERGY CORPORATION DESIGNATED AGENT Arthur C. Youse  
Address P. O. Box 1433 Address P. O. Box 1433  
Charleston, W. Va. 25325 Charleston, W. Va. 25325

OIL & GAS ROYALTY OWNER H. E. Howard  
Address Route 1, Box 19  
Sherman, W. Va. 26173

COAL OPERATOR Not operated  
Address \_\_\_\_\_

Acreage 80 acres

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Philip C. Boggess  
Address 844 Chappell Road  
Charleston, W. Va. 25304

Name \_\_\_\_\_  
Address \_\_\_\_\_

Acreage \_\_\_\_\_

Name \_\_\_\_\_

FIELD SALE (IF MADE) TO: Not Contracted  
Address \_\_\_\_\_

Address \_\_\_\_\_

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Richard J. Morris  
Address P. O. Box 372  
Grantsville, W. Va. 26147  
Phone 354-7259

COAL LESSEE WITH DECLARATION ON RECORD:

Name \_\_\_\_\_  
Address \_\_\_\_\_

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_\_\_ / lease XX  
other contract \_\_\_\_\_ / dated 2/7, 19 76, to the undersigned well operator from H. E. Howard, et al

(If said deed, lease, or other contract has been recorded:)  
Recorded on \_\_\_\_\_, 19\_\_\_\_\_, in the office of the Clerk of the County Commission of Jackson County, West  
Vest, in Lease Book 136 at page 413. A permit is requested as follows:

PROPOSED WORK: Drill X / 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 the receipt of this Application by the  
Department.

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.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY  
TO:  
WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMIS-  
SION  
615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

BLANKET BOND

DEVON ENERGY CORPORATION  
Well Operator  
By A. C. Youse  
A. C. Youse  
Its Dist. Expl. Mgr.

RECEIVED  
OIL AND GAS DIVISION  
WV DEPARTMENT OF MINES  
SEP 29 1981

**PROPOSED WORK ORDER**

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

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt & Assoc.  
Address P. O. Box 388  
Elkview, W. Va. 25071

GEOLOGICAL TARGET FORMATION, Oriskany Sand

Estimated depth of completed well, 4500 feet Rotary XX / Cable tools \_\_\_\_\_ /

Approximate water strata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.

Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes \_\_\_\_\_ / No XX /

**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									Kinds
Fresh Water	9-5/8			X		250	250	125 sax	=to surface
Coal									Sizes
Intermediate	7			X		1700	750	75 sax	=650 feet
Production	4-1/2						4500	225 sax	Depths set 2400 feet
Tubing	2-3/8						4400		
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 5-30-82

*Fred B. Burchett*  
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.

**WAIVER**

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 well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: \_\_\_\_\_, 19 \_\_\_\_\_

By \_\_\_\_\_  
Its \_\_\_\_\_