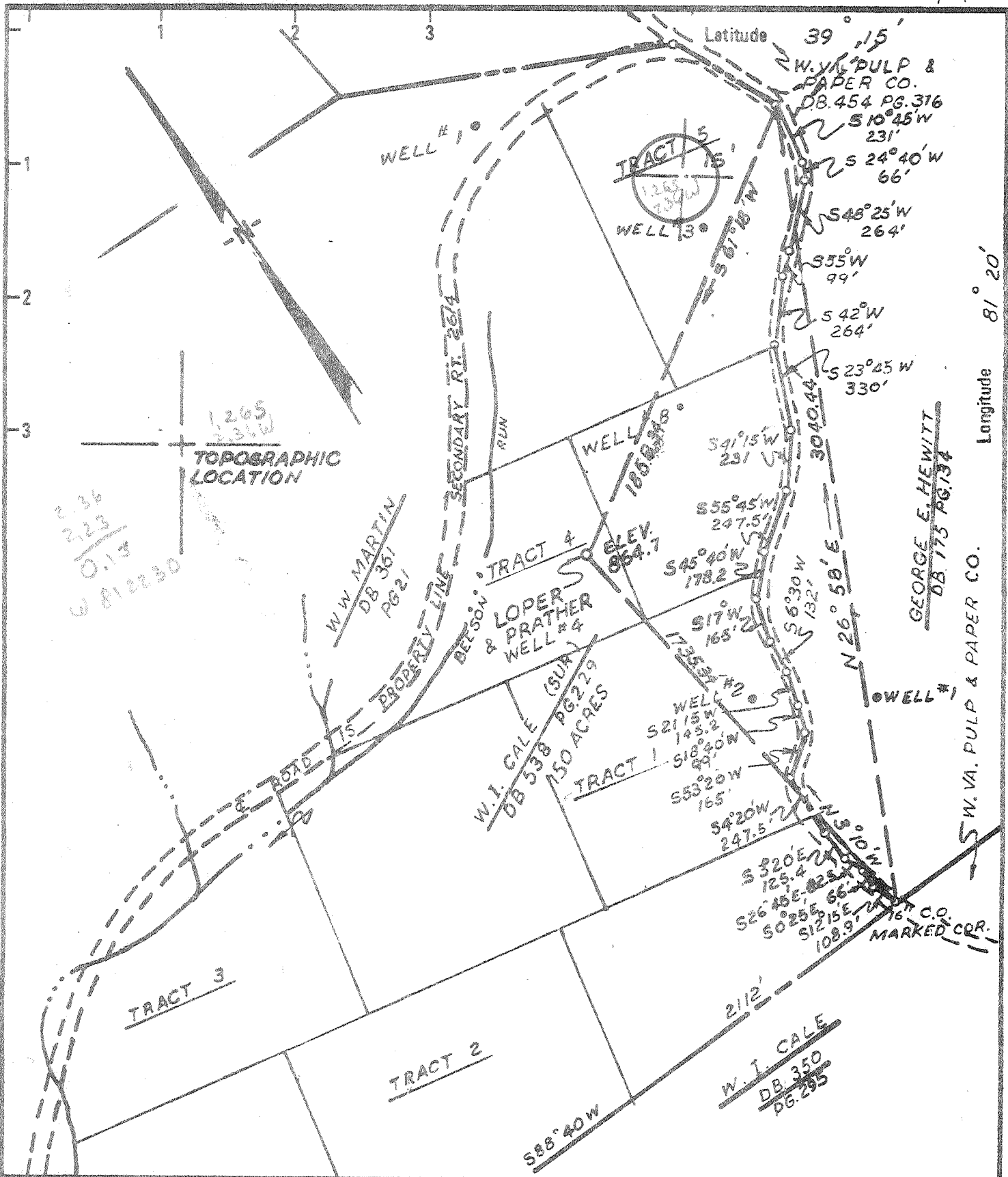


8/3/78



New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure 1 IN 200
 Source of Elevation APPALACHIAN EXPLORATION & DEVELOPMENT
 INC WELL NO. 8 ELEV. 935 PERMIT NO WOO-818
 "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 BURDETTE OIL & GAS CO., INC.
 Address: 1000 11th St. CHARLESTON WVA
 Farm WILLIAM I. CALE
 Tract 4 Acres 150 Lease No. _____
 Well (Farm) No. 4 Serial No. NC
 Elevation (Spirit Level) 864.7, Elizabeth 15
 Quadrangle KANAWHA 7.5 MIN.
 County WOOD District WALKER
 Surveyor OR W. I. CALE
 Engineer's Registration No. LLS. NO. 52
 File No. _____ Drawing No. _____
 Date AUG. 2, 1978 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. WOO-841

+ 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.

(072) 47-107 AUG 18 1978

b-6 Hendershot - Oadin



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

- Rotary
- Spudder
- Cable Tools
- Storage

Quadrangle Elizabeth
707
Permit No. WOO-841

WELL RECORD

Oil or Gas Well (KIND)

Company <u>Burdette Oil & Gas Co.</u>	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address <u>E.O. Box 10167, Station "C", Charleston, W. Va.</u>	Size			Kind of Packer
Farm <u>W. I. Cale</u> Acres <u>75</u>	16			
Location (waters) <u>Stilwell Creek</u>	13			Size of
Well No. <u>Cale #4</u> Elev. _____	10		250'	Depth set
District <u>Prather-Loper #4</u> County _____	8 1/4" <u>8-5/8"</u>			Perf. top
The surface of tract is owned in fee by <u>W. I. Cale</u>	6 5/8"			Perf. bottom
Address _____	5 3/16"			Perf. top
Mineral rights are owned by _____	4 1/2"			Perf. bottom
Address _____	3"			
Drilling commenced <u>8-31-78</u>	2" <u>7/8"</u>		2451'	
Drilling completed <u>9-13-78</u>	Liners Used _____			
Date Shot _____ From _____ To _____				
With _____				
Open Flow _____ /10ths Water in _____ Inch	Attach copy of cementing record.			
_____ /10ths Merc. in _____ Inch	CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____			
Volume _____ Cu. Ft.	Amount of cement used (bags) _____			
Rock Pressure _____ lbs. _____ hrs.	Name of Service Co. _____			
Oil _____ <u>15 barrels</u> _____ bbls., 1st 24 hrs.	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
WELL ACIDIZED (DETAILS) <u>32000 gal mcf gas</u>	_____ FEET _____ INCHES _____ FEET _____ INCHES			
_____	_____ FEET _____ INCHES _____ FEET _____ INCHES			
WELL FRACTURED (DETAILS) <u>28,000 gallons L.S.B. Crude</u>				
<u>60,000 sand</u>				
RESULT AFTER TREATMENT (Initial open Flow or bbls.) <u>1560 +</u> perforated 12 holes at <u>2401 ft. Berea</u>				
ROCK PRESSURE AFTER TREATMENT <u>32 MCF</u> HOURS _____				
Fresh Water _____ Feet _____ Salt Water _____ Feet _____				
Producing Sand _____ Depth _____				

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Red Clay			Surface	16			
Sand			16	200			
Sand & Shale		& R.R.	200	850			
Salt Sand			850	1200			
Sand & Shale		& R.R.	1200	1550			
Sand & Shale			1550	1900			
Big Lime			1900	1975			
Big Injun			1975	2000			
Sand & Shale			2000	2401			
T.D.			2401				

RECEIVED
AUG 1 1980
OIL & GAS DIVISION
DEPT. OF MINES

RECEIVED
AUG - 6 1980
OIL & GAS DIVISION
DEPT. OF MINES

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RECEIVED

AUG 08 1978

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE AUGUST 2, 1978

Surface Owner W. I. Gale Company Burdette Oil & Gas Co., Inc.
 Address Box 66, Route 1, Walker Address P. O. Box 10167, Station "C"
 Mineral Owner Same 35180 Farm W. I. Gale Acres 150
 Address _____ Location (waters) Lopez-Prather Well #4
 Coal Owner _____ Well No. 4 Elevation 864.7
 Address _____ District Walker County Wood
 Coal Operator _____ Quadrangle Elizabeth
 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 12-3-78

Robert L. ...

Deputy Director - Oil & Gas Division

INSPECTOR
 TO BE NOTIFIED Paul Goodnight
 ADDRESS Smithville, W.Va. 26178
 PHONE 477-3660

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 July 14, 1978 by Lopez & Prather Associates made to _____ and recorded on the 15th day of July 19 78 in Wood County, Book 4686 Page 8723

_____ 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, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,
 (Sign Name) I. C. Burdette
 Well Operator
P. O. Box 10167, Station "C"
 Street
Charleston, W.Va. 25312
 City or Town

 State

Address of Well Operator

*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.

CASH DEPOSIT
HELD BY TREASURER

WOOD-841 PERMIT NUMBER

"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."

47-107

Signed by _____

Summary

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 Burdette Oil & Gas Co., Inc. NAME L. G. Burdette
 ADDRESS P. O. Box 10167, Station "C" ADDRESS 3131 Big Tyler Road
 TELEPHONE 899-1802 744-1361 TELEPHONE 770-3767
 ESTIMATED DEPTH OF COMPLETED WELL: 2500' ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: _____
 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			
9 - 5/8			
8 - 5/8	200	200	To surface
7			
5 1/2			
4 1/2	2450	2450	75 ft.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 360' FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS 150 _____
 IS COAL BEING MINED IN THE AREA? _____ 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