

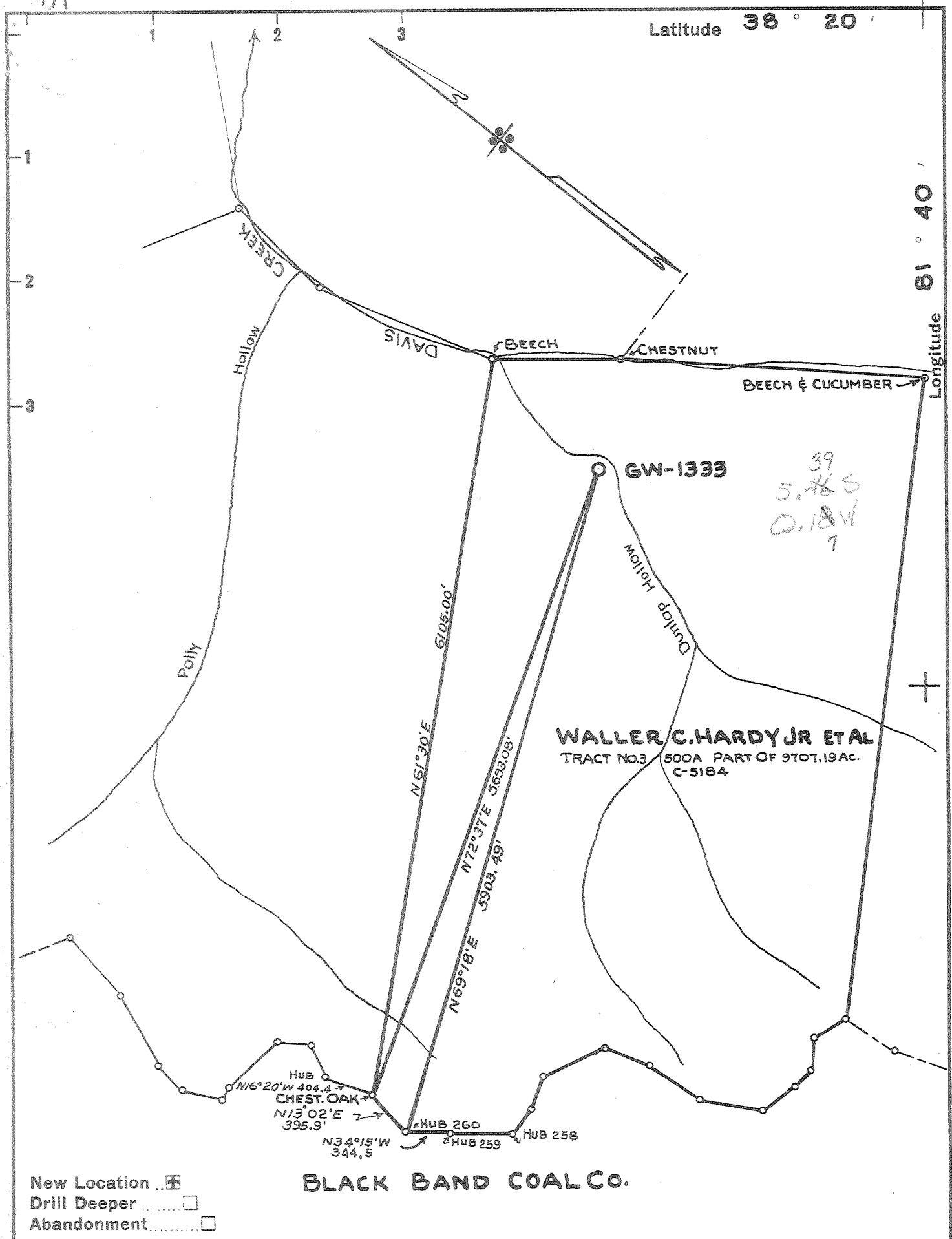
Company **COLUMBIAN CARBON COMPANY**  
 Address **BOX 873 CHARLESTON W. VA.**  
 Farm **WALLER C. HARDY JR ETAL**  
 Tract **3** Acres **500A** Lease No. **C-5184**  
 Well (Farm) No. **1** Serial No. **GW-1333**  
 Elevation (Spirit Level) **838.83'**  
 Quadrangle **CHARLESTON 9 S-546 W-021**  
 County **KANAWHA** District **LOUDON**  
 Engineer **R. B. Anderson**  
 Engineer's Registration No. **2074**  
 File No. \_\_\_\_\_ Drawing No. **W-2-61**  
 Date **FEB. 10-1961** Scale **1" = 1000'**

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

**WELL LOCATION MAP**  
 FILE NO. **KAN-1760 - P**  
**039**

+ 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.



**BLACK BAND COAL CO.**

New Location   
 Drill Deeper   
 Abandonment

Company **COLUMBIAN CARBON COMPANY**  
 Address **BOX 873 CHARLESTON W. VA.**  
 Farm **WALLER C. HARDY JR ETAL**  
PART OF 9707.19 AC.  
 Tract 3 Acres 500 A Lease No. C-5184  
 Well (Farm) No. 1 Serial No. GW-1333  
 Elevation (Spirit Level) 838.83'  
 Quadrangle **CHARLESTON 9** S-546 W-021  
 County **KANAWHA** District **LOUDON**  
 Engineer R. B. Anderson  
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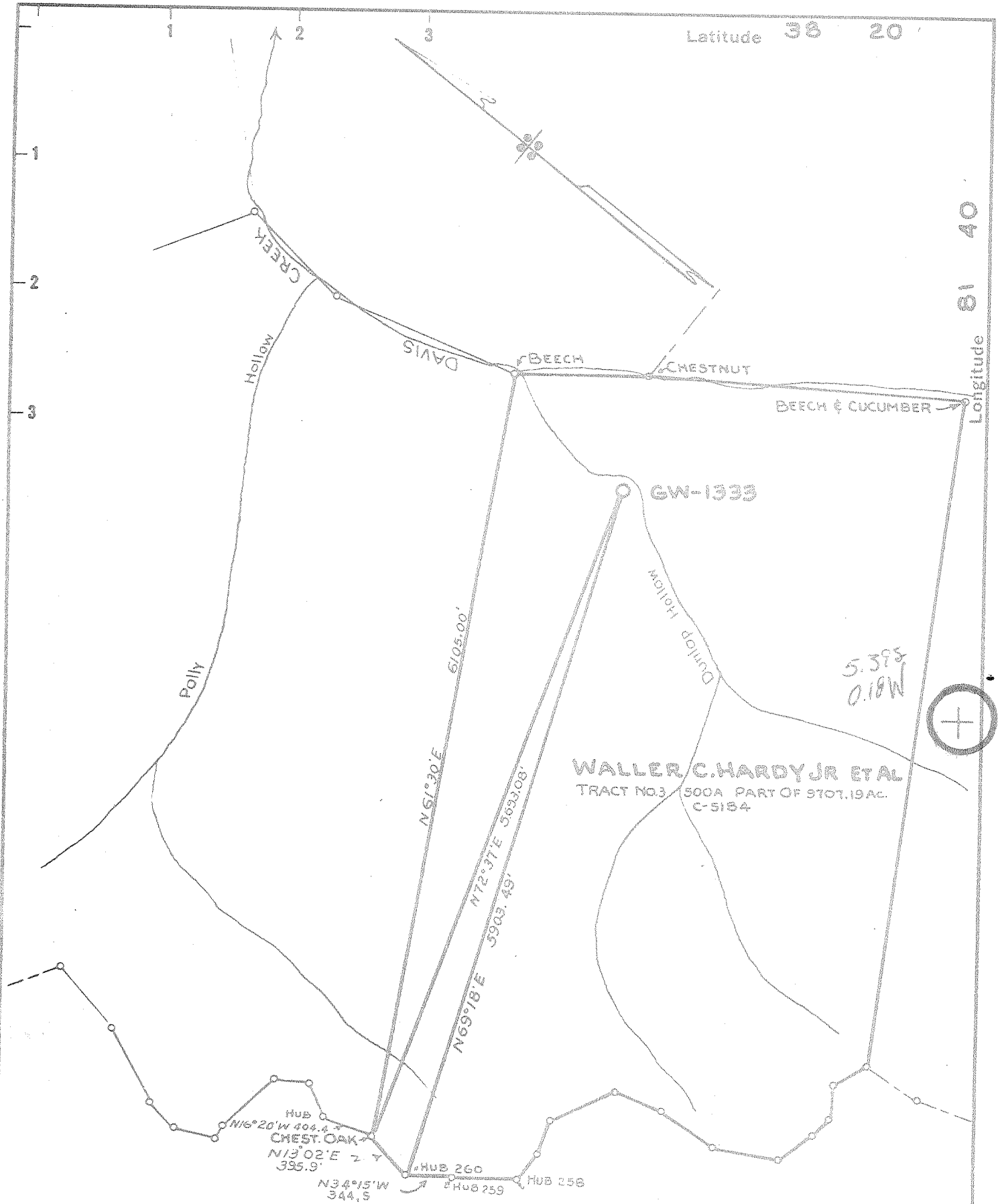
STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. KAN-1760

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206-228



New Location  **BLACK BAND COAL CO.**  
 Drill Deeper   
 Abandonment

Company **COLUMBIAN CARBON COMPANY**  
 Address **BOX 873 CHARLESTON W.VA.**  
 Farm **WALLER C. HARDY JR ET AL**  
PART OF 970.19 AC.  
 Tract **3** Acres **500A** Lease No. **C-5184**  
 Well (Farm) No. **1** Serial No. **GW-1333**  
 Elevation (Spirit Level) **838.83'**  
 Quadrangle **CHARLESTON 9 S-546 W-021**  
 County **KANAWHA** District **LOUDON**  
 Engineer **R. B. [Signature]**  
 Engineer's Registration No. **2074**  
 File No. \_\_\_\_\_ Drawing No. **W-2-61**  
 Date **FEB. 10-1961** Scale **1" = 1000'**

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

**WELL LOCATION MAP**  
 FILE NO. **KAN-1760 - 21**

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SEP 25 1980



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
Oil and Gas Division  
**WELL RECORD**

Quadrangle Charleston  
Permit No. 47-039-1760-DD

Rotary X Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas X  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Company Cities Service Company  
Address Box 873, Charleston, WV 25323  
Farm Waller C. Hardy, Jr., et al Acres 500A  
Location (waters) Dunlap Hollow  
Well No. #1, GW-1333 Elev. 838.83'  
District Loudon County Kanawha  
The surface of tract is owned in fee by Dept. of Natural Resources, 1800 Wash. St., East, Charleston, W. Va. 25303  
Mineral rights are owned by W. C. Hardy, Jr. et al Address 5100 2nd Ave., Vienna, WV 26105  
Drilling Commenced 12-7-80  
Drilling Completed 12-13-80  
Initial open flow 30M cu. ft. -- bbls.  
Final production 35M cu. ft. per day -- bbls.  
Well open 120 hrs. before test 18 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. <del>13-1/8"</del> 3-3/8"	20'	20'	none
10-5/8"	348'	348'	none
8 5/8"	1334'	1334'	none
7"			
5 1/2"			
4 1/2"		2186'	350sx +
3"			
2-3/8"	1533'	1533'	
Liners Used			

Well treatment details:

Acidized Newburg with 1000 gal. 15% Mud Acid @ 2000# @ 6 BPM. Fraced with 19,000# 80/100 sand before screening out @ 5300#. Produced saltwater with show of gas. Sealed off with cast iron bridge plug and plugged back to Big Injun. Acidized with 500 gal. 15% HCL to clean up.

Attach copy of cementing record. 35MCF

Coal was encountered at none Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water none Feet \_\_\_\_\_ Salt Water 5152' Feet \_\_\_\_\_  
Producing Sand Big Injun Depth 1454'-1506'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand			1553	2126		
Shale			2126	3199		SS @ 1588-1-1/4°
Shaly Sand			3199	3412		SS @ 2089 - 1/2°
Chert			4479	4844		SS @ 2591 - 3/4°
Oriskany Lime			4844	5092		SS @ 3090 - 3/4°
Newburg Lime	<u>helderberg</u>		5092	5280		SS @ 3588 - 1-3/4°
Sand & Shale			5280	5374		SS @ 4086 - 2°
						SS @ 4584 - 3-3/4°
						SS @ 5090 - 3°

5374  
1553  
3821 ft  
new footage

McKenzie @ T.D.

5374  
4597  
777 - expl ftg.

**RECEIVED**

MAY 18 1981

OIL & GAS DIVISION  
DEPT. OF MINES

JUN 15 1981



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION /0

Quadrangle Chas. 9 SW

Permit No. Kan-1760

**WELL RECORD**

Oil or Gas Well Gas

(KIND)

Company Columbian Carbon Company  
Address Box 873, Charleston 23, W. Va.  
Farm Waller C. Hardy, Jr., etal Acres 500  
Location (waters) Davis Creek  
Well No. 1 - GW-1333 Elev. 838.83'G  
District Loudon County Kanawha  
The surface of tract is owned in fee by State of W. Va.  
Conservation Comm. Address Chas. 5, W. Va.  
Mineral rights are owned by Waller C. Hardy, Jr., etal  
P. O. Box 350 Address Parkersburg, W. Va.  
Drilling commenced 3-4-61  
Drilling completed 3-31-61  
Date Shot not shot From \_\_\_\_\_ To \_\_\_\_\_  
With \_\_\_\_\_  
Open Flow 7/10ths Water in 1 Inch  
\_\_\_\_\_/10ths Merc. in \_\_\_\_\_ Inch  
Volume 27,000 Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED not acidized

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer _____
13 3/8" 48#	20'	20'	M. B. H.
10 3/4" 32#	348'	348'	Size of <u>8-5/8"</u>
8 1/4" 24#	1334'3"	1334'3"	Depth set <u>1322'SLM</u>
6 3/8"			
5 3/16"			
3			Perf. top _____
2 3/8" 4#	1537'	1537'	Perf. bottom _____
Liners Used w/ _____	_____		Perf. top _____
as _____	_____		Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
see reverse side

COAL WAS ENCOUNTERED AT 120 FEET 36 INCHES  
\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES  
\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

WELL FRACTURED see reverse side

RESULT AFTER TREATMENT 706,000 cubic feet

ROCK PRESSURE AFTER TREATMENT 392# 68 hours

Fresh Water 30' 669-679' Feet Salt Water 727-734' Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Top Soil			0	16			
Slate			16	50	F. Water	30'	
Sand			50	72			
Slate			72	111			
Sand			111	116			
Slate			116	120			
Coal			120	123			
Slate			123	125			
Sand			125	152			
Slate and Shells			152	350			
Sand			350	394	Gas	385-394	show-exh.
Slate			394	440			
Sand			440	518			
Slate and Shells			518	567			
Sand			567	679	F. Water	669-679	1-10"blr/hr.
Slate and Shells			679	706			
Sand			706	748	F. Water	727-734	hole full
Slate			748	760			
Sand			760	771			
Slate and Shells			771	804			
Sand			804	819			
Slate and Shells			819	868			
Sand			868	1071			
Lime			1071	1078			
Red Rock			1078	1098			
Sand			1098	1221			
Lime			1221	1285'			





STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

RECEIVED

AUG - 4 1980

OIL AND GAS WELL PERMIT APPLICATION

OIL & GAS DIVISION  
DEPT. OF MINES

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

DATE July 31, 1980

Surface Owner Dept. of Natural Resources  
Attn: John Marra, Asst. State Forester  
Address 1800 Wash. Street East, Charleston, WV  
Mineral Owner W. C. Hardy, Jr., et al 25305  
Address 5100 2nd Ave., Vienna, WV 26105  
~~ADDRESS~~ Frank A. Hardy  
Rt. 5 Box 33, Lewisburg, WV 24901  
Address \_\_\_\_\_  
Coal Operator \_\_\_\_\_

Company Cities Service Company  
Address Box 873, Charleston, WV 25323  
Farm Waller C. Hardy, Jr. et al 500A  
Location (waters) Dunlap Hollow  
Well No. #1, GW-1333 Elevation 838.83'  
District Loudon County Kanawha  
Quadrangle Charleston 9

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 deepening. This permit shall expire if  
operations have not commenced by 5-11-81.

INSPECTOR  
TO BE NOTIFIED Martin Nichols  
ADDRESS P. O. Box 554, Clendenin, WV  
PHONE 548-6993

Deputy Director - Oil & Gas Division

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 April 22 1959 by W. C. Hardy, Jr. made to Columbian Carbon(now Cities Service) and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in Kanawha County, Book 147 Page 374  
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

Address  
of  
Well Operator

Very truly yours, Cities Service Company  
(Sign Name) Paul D. Phillips  
P. D. Phillips Well Operator Region Petroleum Engineer

Box 873 Street  
Charleston City or Town  
W. Va. 25323 State

\*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.

KAN.-1760-DD PERMIT NUMBER  
47-039

"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."

Signed by \_\_\_\_\_

BLANKET BOND

*Survey*

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 Ray Resources NAME Sam J. Matthews  
 ADDRESS Charleston, W. Va. ADDRESS Cities Service Company  
 ADDRESS \_\_\_\_\_ ADDRESS Box 873, Charleston, WV 25323  
 TELEPHONE \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
 ESTIMATED DEPTH OF COMPLETED WELL: 5360 ROTARY  CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Newburg  
 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 <u>13-3/8" 48#</u>	<u>20</u>	<u>20</u>	<u>None</u>
13 - 10 <u>10-3/4" 32#</u>	<u>348</u>	<u>348</u>	<u>None</u>
9 - 5/8			
8 - 5/8 " <u>24#</u>	<u>1334</u>	<u>1334</u>	<u>None</u>
7			
5 1/2			
4 1/2 " <u>11.6# N-80</u>	<u>5360</u>	<u>5360</u>	<u>118 sacks</u>
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 30 FEET 679 SALT WATER 734 FEET  
 APPROXIMATE COAL DEPTHS 120  
 IS COAL BEING MINED IN THE AREA? No 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



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

RECEIVED

MAY 18 1981

AFFIDAVIT OF PLUGGING AND FILLING WELL OIL & GAS DIVISION  
DEPT. OF MINES

AFFIDAVIT SHOULD BE MADE IN TRIPPLICATE, ONE COPY MAILED TO THE DEPARTMENT, 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.

Frank A. Hardy  
Rt. 5 Box 33  
Lewisburg, WV 24901  
W. C. Hardy, Jr. et al  
5100 2nd Avenue  
Vienna, WV 26105  
Dept. of Natural Resources  
Attn: John Marra, Asst. State Forester  
1800 Wash. St., East, Charleston, WV

Cities Service Company  
Box 873, Charleston, W. Va. 25323  
April 27, 1981  
Loudon District  
Kanawha County  
Well No. #1, GW-1333

Waller C. Hardy, Jr. et al Farm

STATE INSPECTOR SUPERVISING PLUGGING Martin Nichols, P. O. Box 554, Clendenin, WV

AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of Kanawha } ss:

Timothy Nutter and Morris Belcher

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 \_\_\_\_\_, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 16 day of April, 1981, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
			CSG PULLED	CSG LEFT IN
FORMATION	Pulled 2-3/8" tubing	SIZE & KIND		
	Dumped 2 bbl. 6% gel			
	Cast iron bridge plug at 5190'			
	Gelled hole w/6% gel to 1500'			
	Cement plug 5171-5071 (6 sx RFC)			
	Shot casing at 3144' and pulled			
	Cement plug at 3059-2959 (22 sx RFC)			
	Cement plug 1690-1590 PBTB			
COAL SEAMS		DESCRIPTION OF MONUMENT		
(NAME)				
(NAME)				
(NAME)				
(NAME)				

and that the work of plugging and filling said well was completed on the 22 day of April, 1981

And further deponents saith not.

Sworn to and subscribed before me this 22 day of April, 1981

My commission expires:

June 1, 1989

Timothy Nutter  
Morris Belcher  
Commissioner Notary Public

Permit No. 47-039-1760-DD