

WV DEPARTMENT OF NATURAL RESOURCES  
6838.59 AC.

WELL SITE  
STATE PLANE WV  
SOUTH ZONE NAD 1927  
N - 460,062.34  
E - 1,807,267.62

(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. EQHARDYA7.DGN  
DRAWING NO. HARDY \*A-7  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY 1:200  
PROVEN SOURCE OF ELEVATION OPERATOR'S WELL RECORD

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 ENVIRONMENTAL PROTECTION.  
(SIGNED) [Signature]  
R.P.E. 647 L.L.S. 647

PLACE SEAL HERE

<b>STATE OF WEST VIRGINIA</b> DIVISION OF ENVIRONMENTAL PROTECTION <b>OIL AND GAS DIVISION</b>		DATE <u>MAY 29</u> , 20 <u>02</u> OPERATOR'S WELL NO. <u>HARDY *A-7</u> API WELL NO. <u>47 039 1837P</u> STATE COUNTY PERMIT	
WELL TYPE: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL <input type="checkbox"/> (IF 'GAS,') PRODUCTION <input checked="" type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/>		LOCATION: ELEVATION <u>8148'</u> WATER SHED <u>POLLY HOLLOW OF DAVIS CREEK</u> DISTRICT <u>LOUDON</u> COUNTY <u>KANAWHA</u> QUADRANGLE <u>CHARLESTON WEST, WV 7.5'</u>	
SURFACE OWNER <u>WV DEPARTMENT OF NATURAL RESOURCES</u> ACREAGE <u>6838.59</u> OIL & GAS ROYALTY OWNER <u>HARDY OIL &amp; GAS ET AL</u> LEASE ACREAGE <u>TRACT *4 500 AC.</u> LEASE NO. _____		PROPOSED WORK: DRILL <input type="checkbox"/> CONVERT <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____	
PLUG AND ABANDON <input type="checkbox"/> <input checked="" type="checkbox"/> CLEAN OUT AND REPLUG _____ TARGET FORMATION <u>WEIR</u> ESTIMATED DEPTH <u>1722'</u> WELL OPERATOR <u>EQUITABLE PRODUCTION CO.</u> DESIGNATED AGENT <u>RICHARD SMELTZER</u> ADDRESS <u>P.O. BOX 2347, CHARLESTON, WV 25328</u> ADDRESS <u>SAME</u>		COUNTY NAME <u>KANAWHA</u> PERMIT <u>1837P</u>	

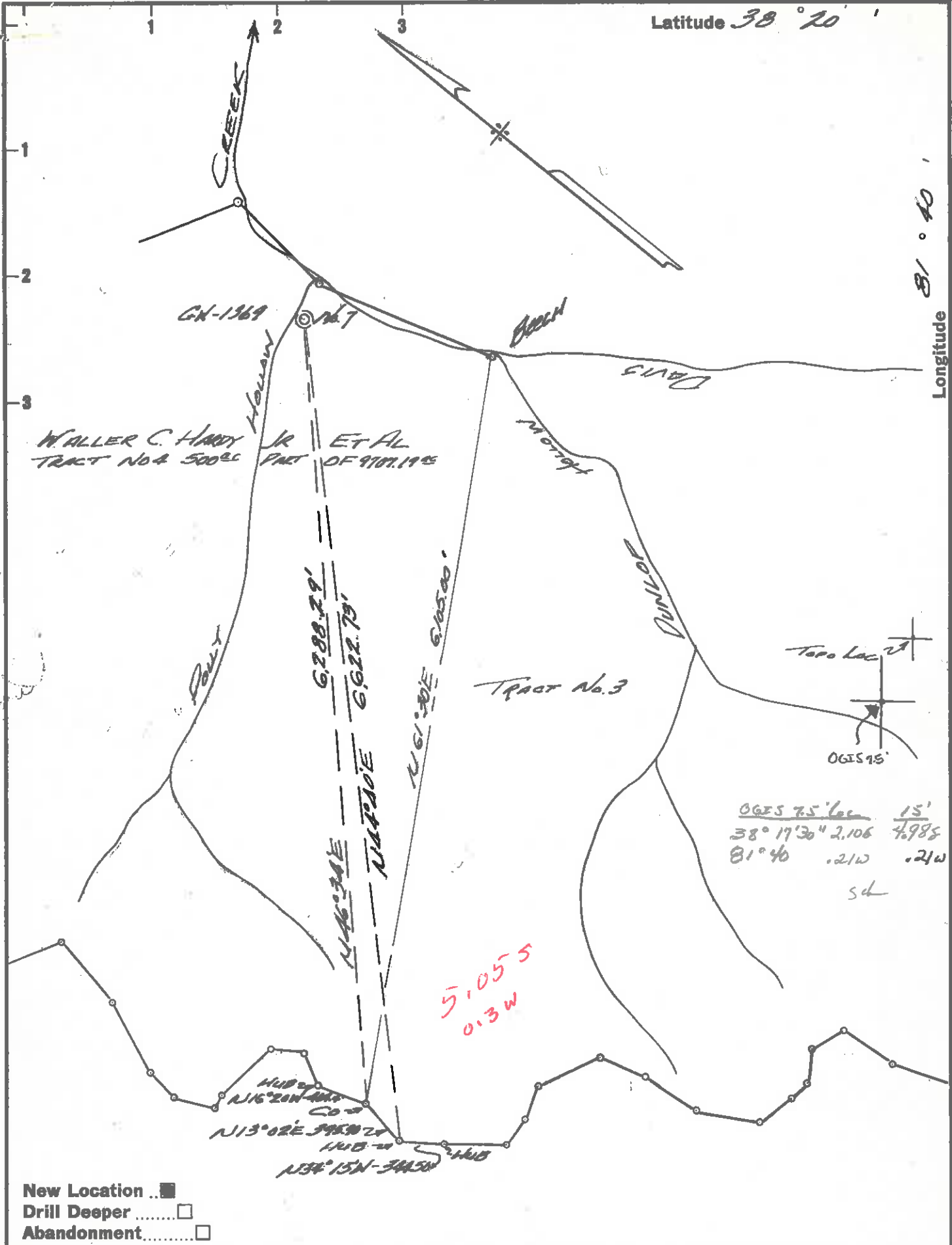
FORM WV-5

JUN 27 2002

M

Latitude 38° 20'

Longitude 81° 40'



Company COLUMBIAN CARBON CO  
 Address Box 873 CHARLESTON, W.Va.  
 Farm WALLER C. HARDY JR. ET AL  
 Tract A Acres 500 Lease No. E-5184  
 Well (Farm) No. 7 Serial No. GN-1369  
 Elevation (Spirit Level) 814.84 SW  
 Quadrangle CHARLESTON 5503 W027  
 County KANAWHA District LOUPON  
 Engineer R. Anderson  
 Engineer's Registration No. 2074  
 File No. \_\_\_\_\_ Drawing No. W-9-62  
 Date 26 FEB 62 Scale 1"=1000'

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

**WELL LOCATION MAP**  
 FILE NO. KAN-1837

+ 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.

KE THE IMPERIAL TRACING CLOTH T. M.

Sampler - 1199 to 1722

66 23.8



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION 6

Quadrangle Chas. SW

WELL RECORD

Oil or Gas Well gas

Permit No. Kan-1837

Company Columbian Carbon Company

Address P. O. Box 873, Charleston 23, W. Va.

Farm Waller C. Hardy, Jr., et al acres 9707.19

Location (waters) Davis Creek

Well No. 7 - GW-1369 Elev. 814.84' G

District Louden County Kanawha  
The surface of tract is owned in fee by Dep't of Natural Resources

Capitol Bldg. Address Charleston 5, W. Va.

Mineral rights are owned by W. C. Hardy, Jr., et al  
P. O. Box 350 Address Parkersburg, W. Va.  
(for further add. contact C. C. C.)

Drilling commenced 4-1-62

Drilling completed 5-10-62

Date Shot 5-10-62 From 1722' To 1518'

With 1466-2B # Atlas Gelatin

Open Flow /10ths Water in Inch  
/10ths-Merc. in Inch

Volume  Cu. Ft.

Rock Pressure  lbs. hrs.

Oil  bbls., 1st 24 hrs.

WELL ACIDIZED see reverse side

WELL FRACTURED see reverse side

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16.			<u>none</u>
18.			Size of
10.			Depth set
8 1/4" 24#	18'	18'	
7" 23#	423'6"	423'6"	
5 3/16" 14#	1305'8"	1305'8"	
3			Perf. top
2 3/8"	1554'6"	1554'6"	Perf. bottom
Liners Used	with 2" cage as siphon string		Perf. top
			Perf. bottom

CASING CEMENTED SIZE No. Ft. 123 Date

see reverse side

COAL WAS ENCOUNTERED AT 123 FEET 36 INCHES

FEET INCHES FEET INCHES

FEET INCHES FEET INCHES

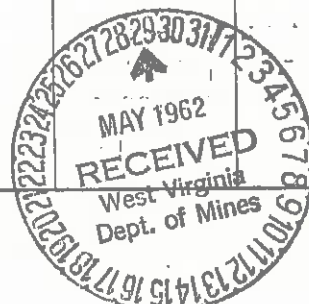
RESULT AFTER TREATMENT F. O. F. 42/10 W. 2" = 273MCF all gas (Big Lime, Big Injun and Weir)

ROCK PRESSURE AFTER TREATMENT 7 days 403#

Fresh Water 60' 382-93' Feet Salt Water 716-26' Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Top Soil			0	5			
Sand			5	20			
Slate			20	32			
Sand			32	110	F. water	60'	hole full
Slate			110	123			
Coal			123	126			
Slate			126	140			
Sand			140	162			
Slate and Shells			162	263			
Sand			263	272			
Slate and Shells			272	333			
Sand			333	393	F. water	382-93'	hole full
Slate and Shells			393	425			
Sand			425	449'			
Slate			449	483			
Sand			483	515			
Slate and Shells			515	616			
Sand			616	698	Oil	646-657'	show
Slate			698	710			
Sand <u>Salt</u>			710	827'	S. water	716-726'	hole full
Slate and Shells			827	888			
Sand			888	1080			
Lime			1080	1096			
Sand			1096	1226			
Lime			1226	1263			
Slate			1263	1268			
Lime			1268	1280			

(over)



Formation	Color	Hard or Soft	Top 6	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			1280	1283			
Big Lime			1283	1455		1296'SLM=1297'DLM	
Big Injun Sand			1455	1493	Gas	1455' show	
Slate and Shells			1493	1722	Gas	1471-80'	12/10 W. 1" 37M
					Gas	1480-89'	incr. fm. 37M to 17/10 W. 1" 43,460 cu. Ft.
Total depth				1722'			
Samples show:							
Big Lime			1226	1448			
Big Injun			1448	1491			
Weir			1660	1713'			
<u>CASING RECORD</u>							
4-14-62 Ran 7" 23# casing with shoe at 351'DLM-set in 15' red mud. Pulled 7" - reamed hole and re-ran 4-16-62 at 420'DLM with shoe-set in 15' red mud.							
4-23-62 Ran 5-1/2" 14# casing with shoe at 1297'DLM-set in 20' red mud.							
<u>FRACTURED THE BIG INJUN 5-2-62</u>							
Before fracturing gas gauged 36MCF - 14 hour rock pressure 390#. Pumped in 500 gallons MCA-loaded tubing. Broke down at 2700#, broke to 2,400#. Started sand 1/2#/gal. Increased to 1#/gallon-pressure dropped to 2100#. Screened out in 11 minutes at 4,000#. Bled back. Started frac again at 1/2#/gallon-increased gradually to 3/4#, Average pressure 2200#-went to 2500# - reduced sand to 1# at end. Pressure 2200#. Flushed with 15 bbls. -time 42 minutes. Average injection rate 10.5 bbls/minute. Used 35 gal N. P. 35 Tergitol, 440 bbls. water, 18,000# sand, 10 minutes after shut down 1200#.							
5-3-62 Released packer-pulled tubing-hole clear to 1,480' - gas wet.							
<u>ACIDIZED BIG LIME 5-4-62</u>							
Before acidizing all gas gauged 133 MCF-Acidized Big Lime with 3,000 gallons acid at 1200# maximum-flowed quite a bit-swabbed off. Pulled tubing and drilled thru Weir.							
<u>SHOT THE WEIR 5-10-62</u>							
Shot from 1722' to 1518' with 1466-2/3# 80% Atlas Gelatin. Shot not tamped-Shot off with jack. Bailer went to 1632'							
5-11-62 Ran 2" siphon string.							
Final open flow 42/10 W. 2" = 273MCF - all gas (Big Lime, Big Injun and Weir)							

Date May 28, 19 62

APPROVED Columbian Carbon Company, Owner

By W. S. Moore, Mgr. of Prod.  
(Title)

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE 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.

Farm name: Hardy Oil & Gas.

Operator Well No: Hardy # A7

LOCATION: Elevation: 814.84ft.      Quadrangle: Charleston West 7.5  
District: Loudon      County: Kanawha  
Latitude: 10910'      Feet South of 38      Deg. 17      Min. 30      Sec.  
Longitude: 1285'      Feet West of 81      Deg. 40      Min. 00      Sec.

Well Type: OIL \_\_\_\_\_ GAS XXXX

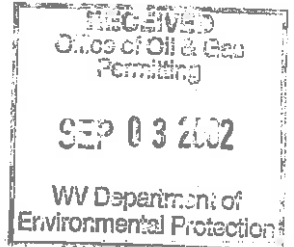
Company: Equitable Production Company  
P. O. Box 2347  
Charleston, WV 25302

Coal Operator or Owner: WV Dept of Natural Resources.  
Div. Of Parks & Recreation  
1900 Kan. Blvd., East, Bldg. # 3  
Charleston, WV 25305

Agent: Richard Smeltzer

Coal Operator or Owner

Permit Issued Date: 6/17/02



AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of Kanawha ss:

Randy Riddle and Audy Malach 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 the above named well operator, and participated in the work of plugging and filling the above well, and Carlos Hivley Oil and Gas Inspector representing the Director, say that said work was commenced on the 16 day of July, 10 2002 and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Jel	1700	1355	1554 2 3/8 tubing	0
cement	1355	1255 (12 sacks)	847 ft 5 1/2 casing	458" ft
Jel	1255	880		423 7/8" <del>8</del>
Cement	880	780 (18 sacks)		18 ft. 8"
Jel	780	693		
cement	693	593 (18 sacks)		Perf. 7" 395-120-60
Jel	593	472		
cement	472	372 (20 sacks)		9/4/02

← over  
Description of monument: Partial Plugging / Well still in production and that the work of partial plugging and filling said well was completed on the 18 day of July, 10 2002

And further deponents saith not. Randy Riddle

Audy Malach

Sworn and subscribe before me this 23 day of July, 19 2002  
My commission expires: 5/3/2005

Denise L. Evans  
Notary Public

Oil and Gas Inspector: Carlos W. Hivley

SEP 03 2002

