



Company COLUMBIAN CARBON COMPANY

Address BOX 873 CHARLESTON W.VA.

Farm UNITED STATES OF AMERICA

Tract 28b-48a Acres 600.00 Lease No. CT-240
PART OF 26f

Well (Farm) No. K-2 Serial No. GW-1310

Elevation (Spirit Level) 3224.90

Quadrangle HORTON - C S-510 W-393

County RANDOLPH District DRY FORK

Engineer Wendell S. Moore

Engineer's Registration No. 2113

File No. _____ Drawing No. W-15-59

Date AUG. 25-1959 Scale 1" = 2000'

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

WELL LOCATION MAP

FILE NO. RAN-109

+ 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.

Do 6230-6233
21 2278-2279
22 2280-2281
23 2282-2283
24 2284-2285
25 2286-2287
26 2288-2289
27 2290-2291
28 2292-2293
29 2294-2295
30 2296-2297
31 2298-2299
32 2300-2301
33 2302-2303
34 2304-2305
35 2306-2307
36 2308-2309
37 2310-2311
38 2312-2313
39 2314-2315
40 2316-2317
41 2318-2319
42 2320-2321
43 2322-2323
44 2324-2325
45 2326-2327
46 2328-2329
47 2330-2331
48 2332-2333
49 2334-2335
50 2336-2337
51 2338-2339
52 2340-2341
53 2342-2343
54 2344-2345
55 2346-2347
56 2348-2349
57 2350-2351
58 2352-2353
59 2354-2355
60 2356-2357
61 2358-2359
62 2360-2361
63 2362-2363
64 2364-2365
65 2366-2367
66 2368-2369
67 2370-2371
68 2372-2373
69 2374-2375
70 2376-2377
71 2378-2379
72 2380-2381
73 2382-2383
74 2384-2385
75 2386-2387
76 2388-2389
77 2390-2391
78 2392-2393
79 2394-2395
80 2396-2397
81 2398-2399
82 2400-2401
83 2402-2403
84 2404-2405
85 2406-2407
86 2408-2409
87 2410-2411
88 2412-2413
89 2414-2415
90 2416-2417
91 2418-2419
92 2420-2421
93 2422-2423
94 2424-2425
95 2426-2427
96 2428-2429
97 2430-2431
98 2432-2433
99 2434-2435
00 2436-2437

6651
Total Depth 6651
5-6 361
Deep Well



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 12

Quadrangle Horton SW
Permit No. Ran-109

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company Columbian Carbon Company, Oper.
Address Box 873, Charleston 23, W. Va.
Farm United States of America Acres 600
Location (waters) McCray Run
Well No. K-2, GW-1310 Elev. 3224.90'
District Dry Fork County Randolph
The surface of tract is owned in fee by Director, Bureau of Land Mgmt.
Interior Bldg. Address Washington 25, D. C.
Mineral rights are owned by same
Address _____
Drilling commenced 9-28-59
Drilling completed 10-28-59
Date Shot not shot From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED not acidized
WELL FRACTURED see reverse side

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			<u>none</u>
18 3/8" 48#	32'5"	32'5"	Size of
10 3/4" 32#	867'8"	867'8"	Depth set
8 3/4" 23#	6978'9"	6978'9"	Perf. top
5 3/16"			Perf. bottom
3"			Perf. top
2"			Perf. bottom
Liners Used			

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
see reverse side
COAL WAS ENCOUNTERED AT none FEET _____ INCHES _____
FEET _____ INCHES FEET _____ INCHES
FEET _____ INCHES FEET _____ INCHES

RESULT AFTER TREATMENT 164,000 cu. ft. from Chert (Oriskany plugged off at 6640')
ROCK PRESSURE AFTER TREATMENT 10 days 910#
Fresh Water 70' Feet _____ Salt Water _____ Feet _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Sand			0	40			
Sand, Shells & Lime			40	340	F. water	70'	
Hard Sand			340	560			
Sandy Shale			560	650			
Shale			650	850			
Shale and Limestone			850	1555			
Shale and Sand			1555	1820			
Lime			1820	1980			
Shale & Lime streaks			1980	5210			
Shale			5210	6265			
Chert			6265	6345			
Chert and Shale			6345	6680			
Oriskany Sand			6680	6900			
Sand and Lime			6900	6930			
Total depth				6930'			
The following are sample determinations:							
Onondaga (brown Break at 6210')			6210	6260			
Chert			6260	6338			
Shale			6338	6440			
Chert			6440	6465			
Shale w/ Limestone streaks			6465	6501			
Chert			6501	6570			
Shale w/trace Chert			6570	6652			
Oriskany			6652	6860			
Helderburg Lime			6860	6930			

(over)

Formation	Color	Hard or Soft	Top / 2	Bottom	Oil, Gas or Water	Depth Found	Remarks
<u>CASING RECORD</u>							
13-3/8" drive pipe - cemented.							
10-3/4" ran at 850' cemented with 250 bags. Circulation and returns.							
7" ran at total depth with guide shoe on bottom, float collar one joint up and 4 centralizers. Cemented with 250 sacks							
11-4-59 Perforated the Chert 6285-6567' with 160 shots.							
11-6-59 Fractured the Chert - used 16,000 gallons sand and water, 1,000 gallons MCA-15,000# 20-40 sand and 80 barrels flush - total amount of fluid pumped in 474 barrels-17.4 barrels per minute.							
11-9-59 Perforated Oriskany Section.							
11-11-59 Ran 3" tubing with Baker RT 8 Packer set at 6600'. Fractured Oriskany with 16,000 gallons water and sand, 1,000 gallons MCA - broke down from 2000-1800#. Maximum treating pressure 3400# - minimum 2600#. Shut in pressure 1500#. Used 15,000# 20-40 sand - injection rate 14.4 barrels per minute.							
Before fracturing Oriskany, Chert gas gauged 15/10 W. 2" = 163 MCF.							
11-12-59 Well dead after fracturing Oriskany. Pulled 3" tubing and ran 2" as siphon string-moved out rotary 11-17-59.							
Moved in spudder and pulled tubing.							
2-24-60 Testing showed salt water from Oriskany.							
2-27-60 Set plug in casing at 6640' and plugged off Oriskany.							
Final open flow from Chert 3/10 W. 3" = 164 MCF - 820# for 7 days. 10 days 910#							

Date April 12, 19 60

APPROVED Columbian Carbon Co., Oper., Owner

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