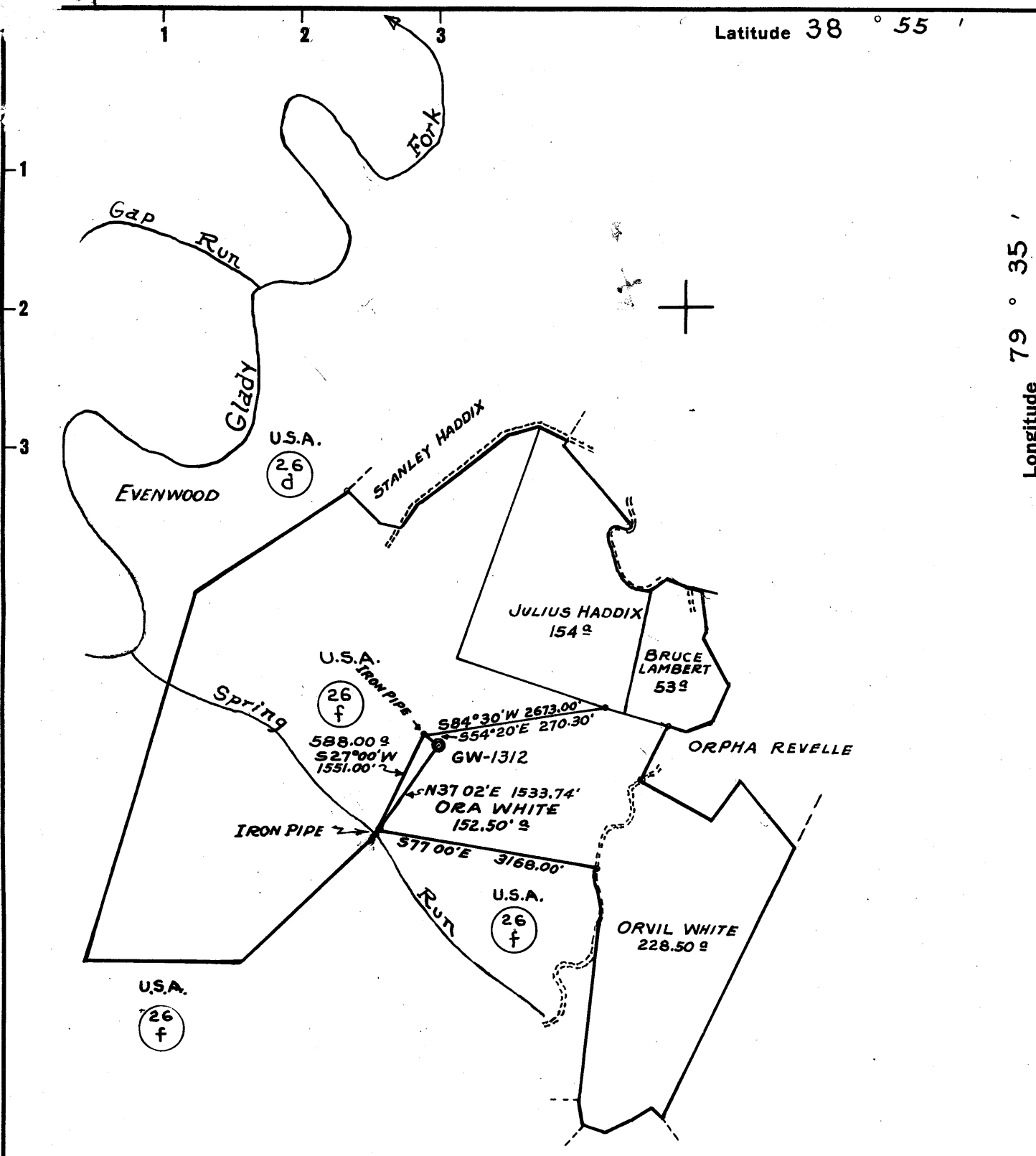


Latitude 38 ° 55

Longitude 79 ° 35



- New Location
- Drill Deeper
- Abandonment

S. 2.14
 W. 2.58
 5-c (H-13)

Company <u>COLUMBIAN CARBON COMPANY</u>
Address <u>BOX 873 CHARLESTON WVA.</u>
Farm <u>JULIUS HADDIX et al</u>
Tract _____ Acres <u>1176.00</u> Lease No. <u>CT-241</u>
Well (Farm) No. <u>1</u> Serial No. <u>GW-1312</u>
Elevation (Spirit Level) <u>3025.20'</u>
Quadrangle <u>HORTON - C S-214 W-258</u>
County <u>RANDOLPH</u> District <u>DRY FORK</u>
Engineer <u>R. B. Anderson</u>
Engineer's Registration No. <u>2074</u>
File No. _____ Drawing No. <u>W-16-59</u>
Date <u>SEPT. 25 1959</u> Scale <u>1" = 2000'</u>

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

WELL LOCATION MAP

FILE NO. RAN-110

+ 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.

6-6 261

Deep Well

has ... sampler



Drilled under Agreement with
 Hope Natural Gas Company-owned
 50% by Hope and 50% by Columbian

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION 13

Quadrangle Horton SW

Permit No. Ran-110

WELL RECORD

Oil or Gas Well Gas
 (KIND)

Company Columbian Carbon Co., Oper.
 Address Box 873, Charleston 23, W. Va.
 Farm Julius Haddix, et al Acres 1 176

Location (waters) Spring Run
 Well No. 1- GW-1312 Elev. 3025.20'
 District Dry Fork County Randolph

The surface of tract is owned in fee by Julius H. Haddix, et al
 Address Alpena, W. Va.

Mineral rights are owned by Julius H. Haddix, et al
 (for further addresses contact C. C. C.)
 Address _____

Drilling commenced 11-22-59

Drilling completed 1-19-60

Date Shot not shot From _____ To _____

With _____

Open Flow /10ths Water in _____ Inch

/10ths Merc. in _____ Inch

Volume show Cu. Ft.

Rock Pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.

WELL ACIDIZED not acidized

WELL FRACTURED see fracturing record on reverse side

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer _____
13 3/8" 48#	55'6"	55'6"	none
10 3/4" 40#	639'8"	639'8"	Size of _____
8 1/4"			
5 3/16"			Depth set _____
3			Perf. top _____
3 3/8" 4#	6269'	6269'	Perf. bottom _____
Liners Used	w/2" cage 9' off btm.		Perf. top _____
			Perf. bottom _____

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 569,000 cu. ft. (Chert and Oriskany) ✓

ROCK PRESSURE AFTER TREATMENT 5 das. 1510#

Fresh Water 130' Feet _____ Salt Water: _____ Feet _____

Formation	Color	Hard or Soft	Top Sample Log	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	60			
Siltstone			60	106			
Shale and Siltstone			106	120	F. water	130'	
Siltstone			120	170			
Shale and Siltstone			170	340			
Shale and Sand			340	400			
Sand, Shale & Siltstone			400	450			
Sand			450	555			
Shale and Sand			555	590			
Siltstone and Shale			590	650			
Brown Sand			650	670			
Shale			670	680			
Siltstone			680	700			
Shale			700	730			
Siltstone			730	770			
Shale			770	800			
Siltstone			800	850			
Shale			850	925			
Siltstone w/ Shale streaks			925	1140			
Shale			1140	1330			
Siltstone w/ Shale streaks			1330	1390			
Shale to Shale and Siltstone			1390	1570			
Siltstone w/ Shale streaks			1570	1640			
Shale			1640	1740			
Shale and Siltstone			1740	2230			
Shale			2230	2280			
Siltstone			2280	2310			

(over)

F 60

APPROVED, Columbian Carbon Co., Oper., Owner.
 By W. S. Moore, Mgr. of Prod. (Title)
 Date March 22, 1960

Formation	Color	Hard or Soft	Top 13	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale and Siltstone			2310	2650			
Siltstone			2650	2680			
Shale			2680	2765		6006	
Siltstone and Shale			2765	2800		3026	
Shale and Siltstone			2800	3570		3026	
Shale			3570	3635		3174	
Shale and Siltstone			3635	3910			
Shale			3910	4045			
Shale and Siltstone			4045	4100			
Shale and Siltstone			4100	4470			
Shale			4470	5830			
Shale			5830	5868			
Onondaga			5868	5970			
Chert			5970	6006			
Shale			6006	6200			
Oriskany			6200	6260			
Lime			6260				
Fractured the Oriskany 1-23-60							
Loaded annulus with water - 163 barrels; Pumped 500 gallons MCA - 40 barrels water (1/2% Tertitol) into Oriskany Sand. Displaced MCA with 21-1/2 barrels water at 1100#.							
Injection rate 725 gpm - time 2 minutes. Maximum breakdown pressure 3350# - final 3000#.							
Used 16,000# 20-40 sand followed by 1500# 10-30 sand, 16,000 gallons water (1/2% Tertitol). Injection time 20 minutes - 800 gpm. Flushed with 3,500 gallons water (1/2% Tertitol). Maximum pressure 3000# - final 3000#. Injection time 5 minutes - 700 gpm. Used 110 gallons TMN and 110 gallons T-08 Tertitol. Pressure 10 minutes after shut down 1500#. Show of gas before fracturing. Dropped ball to seal Oriskany and complete Chert Frac.							
Fractured the Chert 1-23-60							
Pumped 1,000 gallons MCA into Chert. Displaced MCA with 27 barrels water (1/2% Tertitol). Maximum breakdown pressure 2800# - final 2800# - injection time 3 minutes - 333 gpm. Used 11,500# 20-40 sand and 500# 10-30 sand with 12,000 gallons water (1/2% Tertitol). Maximum pressure 3400# - final 3400#. Injection time 23 minutes - 521 gpm. Flushed with 3,050 gallons water (1/2% Tertitol). Maximum pressure 3400# - final 3400#. Injection time 5 minutes - 610 gpm. Used 110 gallons TMN and 110 gallons T-08 Tertitol. 10 minutes after shut down 1500# pressure. Gas before fracturing gauged 60 MCF.							
1-24-60 Dried up hole.							
After fracturing Oriskany and Chert - Oriskany gas 4/10 W. 2" = 84MCF Chert gas 30/10 W. 2" = 231MCF Total gas 315MCF							
Retracted the Oriskany 1-28-60							
Ran tubing and set Baker Model "A" packer at 5966'. Ran 500 gallons MCA - loaded tubing. Broke down with 10 barrels water (1/2% Tertitol) - 2900# maximum pressure - started getting water and sand from annulus above packer. Flushed with 250 barrels water at 3400# pressure. Released packer - casing collapsed above packer. Unscrewed from packer, shot off tubing and dried up hole.							
2-5-60 Moved in spudder, mandrelled out pipe, fished out tubing and packer and cleaned out to bottom.							
3-3-60 Final open flow 36/10 W. 3" = 569MCF - 5 day rock pressure 1510#.							
Casing Record							
13-3/8" casing cemented in							
10-3/4" casing with shoe ran at 630'DLM-cemented with 175 sacks - returns.							
7" casing ran at 6009' with guide shoe on bottom - 3 centralizers on 1st, 2nd and 4th joints - cemented with 160 sacks.							

Dry Fork District, Randolph Co., W. Va.
 Drilled by Columbian Carbon Co., Oper. Box 873, Charleston 23, W. Va.
 Drilled under permit Ran-110; Horton SW Quadrangle.
 On 1176 acres on Spring Run.
 Elevation 3025.50' L.
 Surface owned by Julius H. Haddix et al., Alpena, W. Va.
 Minerals owned by Julius Haddix et al., and drilled under agreement with
 H. Natural Gas Co. - owned by Hope and Columbian Carbon Co.
 Drilling commenced 11/22/59; completed 1/19/60.
 Well was not shot.
 Volume - show.
 Well was not acidized.
 Well fractured: 1/23/60 in Oriskany. Loaded annulus with water - 163 bbls.
 Pumped 500 gal. MCA - 40 bbl. water (1/2% Tergitol); into Oriskany Sand.
 Displaced MCA with 21-1/2 bbls. water at 1100#. Injection rate 725 gpm-
 time 2 min. Max. breakdown pressure 3350#-final 3000#. Used 16,000#
 20-40 sand followed by 1500# 10-30 sand, 16,000 gal. water (1/2% Tergitol)
 Injection time 20 min. - 800 gpm. Flushed with 3,540 gal. water (1/2%
 Tergitol). Max. pressure 3000# - final 3000#. Injection time 5 min. - 700
 gpm. Used 110 gal. TMN and 110 gals. T-08 Tergitol. Pressure 10 min. after
 shut down 1500#. Show of gas before fracturing. Dropped ball to seal
 Oriskany and complete Frac. of Chert.
 1/23/60 fractured Chert. Pumped 1,000 gal. MCA into Chert. Displaced MCA
 with 27 bbls. water (1/2% Tergitol). Max. pressure breakdown 2800# -final
 2800#. injection time 3 min. 333 gpm. Used 11,500# 20-40 sand and 500#
 10-30 sand with 12,000 gal. water (1/2% Tergitol). Max. pressure 3400#
 final 3400#. Injection time 23 min. - 521 gpm. Flushed with 3,050 gal.s
 water (1/2% Tergitol). Max. pressure 3400# - final 3400#. Injection time
 5 min. 610 gpm. Used 110 gal. TMN and 110 gals. T--8 Tergitol. 10 min.
 after shut down 1500# pressure. Gas before fracturing gauged 60 Mcf.
 1/24/60: Dried up hole.
 After fracturing Oriskany and Chert - Oriskany gas 4/10 W 2" = 84 Mcf.;
 Chert gas 30/10 W 2". = 231 Mcf. (total gas 315 Mcf.)
 Refractured the Oriskany 1/28/60: Ran tubing and set Baker Model "A":
 packer at 5966'. Ran 500 gal. MCA - loaded tubing. Broke down with 10
 bbls. water (1/2% Tergitol) - 2900# max. pressure - broke to 2200#.
 Pumped in 10,920 gals. water (1/2% Tergitol) with 8,000# sand. Started
 getting water and sand from annulus above packer. Flushed with 250 bbls.
 water at 3400# pressure. Released packer - casing collapsed above packer.
 Unscrewed from packer, shot off tubing and dried up hole.
 2/5/60 moved in spudder, mandrelled out pipe, fished out tubing and packer
 and cleaned out to bottom.
 3/3/60 final open flow 36/10 W 3" = 569 Mcf. - 5 day rock pressure 1510#.
 13 3 7/8" casing cemented in. 10 3/4", casing with shoe ran at 630' DLM -
 cemented with 175 sacks - returns. 7" casing ran at 6009' with guide
 shoe on bottom - 3 centralizers on 1st, 2nd and 4th joints - cemented
 with 160 sacks.
 13 3/8" casing 48#, 55'6"; 13 3/4", 40#, 639'6"; 7" 23#, 6059'9"; 2 3/8",
 6269'; liners used with 2" cage 9' off bottom.

No coal recorded.

Record to Dept. of Mines Mar. 22, 1960

Record from Allen, Mar. 23, 1960 (from Columbian Carbon Co.)

	Top.	Bottom.
Surface	0	60
Siltstone	60	106
Shale and siltstone	106	120
Siltstone	120	170

	Top.	Bottom
Shale and siltstone	170	340
Shale and sand	340	400
Sand, shale and siltstone	400	450
Sand	450	555
Shale and sand	555	590
Siltstone and shale	590	650
Brown sand	650	670
Shale	670	680
Siltstone	680	700
Shale	700	730
Siltstone	730	770
Shale	770	800
Siltstone	800	850
Shale	850	925
Siltstone with shale streaks	925	1140
Shale	1140	1330
Siltstone with shale streaks	1330	1390
Shale to shale and siltstone	1390	1570
Siltstone, with shale streaks	1570	1640
Shale	1640	1740
Shale and siltstone	1740	2230
Shale	2230	2280
Siltstone	2280	2310
Shale and siltstone	2310	2650
Siltstone	2650	2680
Shale	2680	2765
Siltstone and shale	2765	2800
Shale and siltstone	2800	3570
Shale	3570	3635
Shale and siltstone	3635	3690
Shale	3690	3910
Shale and siltstone	3910	4045
Shale	4045	4100
Shale and siltstone	4100	4470
shale	4470	5330
Onondaga	5830	5868
Chert	5868	5976
Shale	5970	6006
Oriskany	6006	6200
Lime	6200	6260
TOTAL DEPTH (Rotary)		6260