

STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES

The Johns Hopkins University
BALTIMORE 18, MARYLAND

G-9

WELL COMPLETION REPORT

This report must be submitted within 30 days after completion of the well

WELL DESCRIPTION

WELL LOG		CASING AND SCREEN RECORD			Permit Number <u>9 (Nine)</u>
State the kind of formations penetrated, their depth, their thickness, and if water-bearing		State the kind and size of casing, liner, shoe, screen, and other accessories (if no casing used, give diameter of well)			Name of Owner <u>Columbian Carbon Co</u>
WELL LOG	FEET		DIAM. (Inches)	FEET	PUMPING TEST
	from.....to.....		Ant' run	left in	Hours Pumped.....
GW-1514, James F. Hamilton #1-started drilling 11-17-54 completed drlg. 2-10-55					Pumping Rate Gallons per Minute.....
<u>Log of Well</u>		10-3/4" drive pipe ran at 77'	76" 1/4"	76" 1/4"	
Cellar	0 - 8	8-5/8" 24# & 28# casing ran at 503' with Midget btn. hole packer	506" 11"	352" 3"	<u>WATER LEVEL</u>
Soil	8 - 12				Distance from land surface to water:
Soapstone	12 - 46				Before Pumping.....Ft.
Slate & Shells	46 - 2757	7" casing 23# ran with shoe at 4010' SLM-4002' DLM	4017" 1"	4017" 1"	When Pumping.....Ft.
Dark Shale	2757 - 2794	2-3/8" tubing ran with 2" cage			<u>APPEARANCE OF WATER</u>
Slate & Shells	2794 - 3410				Clear <u>Fresh water at</u>
Lime	3410 - 3442	7" casing cemented with 14 sacks cement.			Cloudy <u>40' hole full</u>
Dark Shale	3442 - 3530	Gas pays:			Taste.....
Gray Shale	3530 - 3768	4075-77' 13/10 W. 2" 152MCF			Odor.....
Black Shale	3768 - 3913	4083-86' 28/10 W. 2" 223MCF			Height of Casing Above Land Surface.....Ft.
Gray Shale	3913 - 3948	4121-25' 22/10 W. 2" 198MCF			<u>PUMP</u>
Brown break	3948 - 3949	4147-52' 56/10 W. 2" 315MCF			Type.....
Lime	3949 - 3998	4152-54' 61/10 W. 2" 329MCF			Capacity
Chert	3998 - 4080				Gallons per Minute.....
4006' SLM-3998' DLM					Gallons per Hour.....
Driskany	4080 - 4167				Pump Column Length.....Ft.
4010' SLM-4002' DLM					<u>REMARKS</u>
Lime	4167 - 4191				<u>well shut in 3-14-55</u>
TOTAL DEPTH - - - -	- 4191'				
<u>Hydrafracing Record</u>					
Before hydrafracing gas gauged 18/10 W. 2" 179MCF					
2-22-55 Cleaned out to 4189'. Bailed hole dry. Ran tubing with Baker Retrievable Packer at 3970'. 2-23-55 Gelled 2400 gallons of kerosene-pumped in with 5300# sand. Started in at 2600# pressure. Finished pumping at 3400#. Displaced with 61 bbls. crude oil. Pressure dropped from 3400# to 2400# when quit pumping. Shut in at 2100# pressure.					
2-24-55 - Cleaned out to bottom-gas gauged 24/10 W. 1" 51,630 cu. ft.					
3-8-55 - Set a Baker open hole packer at 4068'. Loaded packer with water. Lowered packer to 4077'-then to 4102'. Gelled 2400 gallons kerosene and injected 4000# sand with kerosene at 3800# maximum pressure. 400# on B.N. when finished gelling. Displaced with 40 bbls. oil at 3200# pressure.					
Final open flow 20/10 W. 2" 189,000 cu. ft- 27 hour pressure 990#. Well fractured by Halliburton					
					Well Was Completed
					Date <u>3-14-55</u>
					Well Driller <u>A.E. Campbell</u>
					<u>Columbian Carbon Co</u>
					Signature