



WATER-RIGHT DOCKET

Virgin Islands National Park

Docket No: 8

WELL #8, CINNAMON BAY

Supporting Hydro Data

00-00-0000: table 1: records of drilled test wells; construction data, hydrologic data, supplementary data

DESIGNATION		CONSTRUCTION DATA										HYDROLOGIC DATA										SUPPLEMENTARY DATA									
		Date		Depth		Casing record		Finish		Type		Surface altitude		Depth below land		Water-bearing material		Yield		Temp.		Remarks		Use		T		O		P	
Well number	Location	Type	(year)	Plotted	Depth (feet)	From	To	From	To	From	To	(feet)	(feet)	(feet)	(feet)	(no. yr.)	(no. yr.)	(gpm)	(gpm)	(°F)	(°F)										
NPS-2	Cruz Bay	Drilled	1964	99	4	0	20	0	20	99	None	60	40.0	6-64	Vt			1		82				T		0		82			
NPS-3	Cruz Bay	do	1964	54	6	0	25	0	25	54	None	40	26.5	6-64	Vt			5		83				T		0		83			
NPS-4	Lind Point	do	1964	200	6	-	-	0	0	200	None	176	Dry	6-64	-			-		-				-		-		-			
NPS-5	Trunk Bay	do	1964	60	6	0	12	0	12	60	None	60	32.1	7-64	Vb			6		80				T		0		80			
NPS-6	Cinnamon Bay	do	1964	70	6	0	50.7	0	50.7	70	None	60	56.9	11-64	Vt			8		80				T		0		80			
NPS-7	Hawksnest Bay	do	1964	36	6	0	27	0	27	36	None	40	17.1	8-64	Vb			12		80				T		0		80			
NPS-8	Cinnamon Bay	do	1964	50	6	-	-	0	0	50	None	20	Dry	9-64	-			-		-				-		-		-			
NPS-9	Cinnamon Bay	do	1964	60	6	0	39	0	39	60	Sub-ble	50	42.9	10-64	Vt, Vb			8		80				P		0		80			
NPS-10	Lameshur	do	1964	66	6	0	52	0	52	66	None	40	28.5	10-64	V			2		84				0		0		84			

Finish: 0 - open hole, S - slotted.

Water-bearing material: Vb, volcanic breccia; Vt, volcanic tuff; V, volcanic undifferentiated.

Use: T, test; O, observation; P, public supply.

Table 2.--Chemical quality of water from drilled test wells, Virgin Islands National Park, St. John, V. I.

Well Number	Location	Date of collection	PARTS PER MILLION															pH	Dis-charge (gpm)
			Silica (SiO ₂)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Dissolved solids	Hardness as CaCO ₃ eq. in medium	Specific conductance (micro-mhos at 25° C)			
NPS-2	Cruz Bay	5-18-64	31	0.00	66	67	320	-	664	46	470	0.6	4.9	1,400	440	2,490	7.9	1	
NPS-3	Cruz Bay	6-3-64	34	.00	94	77	377	-	632	45	480	.5	4.4	1,420	551	2,270	7.8	5	
NPS-4	Cruz Bay housing	Dry hole																	
NPS-5	Trunk Bay	7-17-64	38	.05	80	61	188	-	482	39	300	.0	.0	988	450	1,670	7.9	6	
NPS-6	Cinnamon Bay	8-2-64	34	.00	46	81	224	-	390	47	400	.3	.4	1,060	448	1,900	8.2	8	
NPS-7	Hawenest Bay	8-8-64 ^{1/}	35	.00	68	88	214	-	272	57	505	.1	2.2	1,260	534	2,090	7.9	12	
NPS-7	Hawenest Bay	8-8-64 ^{2/}	38	.05	106	577	628	-	360	276	2,425	.0	.4	5,640	2,637	7,440	7.5	12	
NPS-8	Cinnamon Bay	Dry hole																	
NPS-9	Cinnamon Bay		36	.00	58	71	183	-	504	30	275	.5	.0	964	436	1,610	8.4	8	
NPS-10	Iameshur Bay		23	.04	70	111	-	-	544	-	1,003	.3	.9	2,380	631	4,090	7.8	2	

^{1/} Sample taken at beginning of test, 5 minutes pumping.^{2/} Sample taken at end of test, 12 hours pumping.

Other Supporting Information

12 Arroyo Street
Hato Rey, Puerto Rico 00918

January 14, 1965

Mr. Frank R. Givens, Superintendent
National Park Service
Virgin Islands National Park
P. O. Box 1707 Charlotte Amalie
St. Thomas, V. I. 00802

Dear Mr. Givens:

A tabulation is enclosed of funds spent on test-well drilling for the National Park Service in St. John, Virgin Islands. The funds were assigned in FY-1964, but the drilling contract carried over into FY-1965.

If you have any questions about the data shown, Mr. Donald C. Jordan, our resident engineer in St. Thomas, is in the best position to provide answers. Sufficient copies of the tabulation have been provided for your possible transmittal to appropriate other NPS offices.

Exploring for and finding water for some of your needs was an interesting technical problem. The second phase of observing how the well supplies stand up under regular use also will be interesting. Pivotal in this phase is knowing how much water is pumped. I believe Mr. Jordan has made recommendations on what information is needed.

Cordially yours,

DBB
Dean B. Bogart
Chief, Caribbean District, W&D

In triplicate

cc: D. C. Jordan, St. Thomas, V. I.

Area Hydrologist, Arlington, Va.

DBB/gmp

Water-Supply Project for National Park Service
in Virgin Islands National Park, St. John

Summary of costs of test-well drilling, FY-1964 funds

Funds assigned to drilling	\$15,000
Less: 12 3/4% Washington Office	
Technical Service Charge	<u>1,912</u>
Net funds available for drilling	<u>\$13,088</u>

Well number	Depth drilled, ft 14.75/ft	Casing installed, ft 5.00/ft	Casing pulled, ft 1.25/ft	Experimental time, hr \$11.00/hr	Pumping and bailing tests, hr \$11.00/hr	Cost
NPS-2	98	-	18	-	2 1/2	\$ 1,495.50
3	54	25	-	-	13 1/2	1,070.00
4	200	-	13	-	0	2,966.25
5	60	13	-	-	17	1,137.00
6	70	54	-	-	10 1/2	1,418.00
7	36	28	-	-	15 1/2	841.50
8	50	-	21	-	0	763.75
9	60	45 1/	-	1	9	1,220.00
10	<u>66</u>	<u>53 1/</u>	<u>-</u>	<u>-</u>	<u>8</u>	<u>1,326.50</u>
Total	694	218	52	1	73	\$12,238.50
Bulldozing 2/						<u>810.00</u>
						<u>\$13,048.50</u>

1/ 4-inch diameter plastic liner was installed, in addition to steel casing.

2/ Bulldozing drilling sites.

December 31, 1964

U. S. Geological Survey
San Juan, Puerto Rico

Docket Information

Number of Documents in Docket 4

Documents Dated from 1/14/1965 to 1/14/1965

Docket Compiled: 7/28/2011