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Diag. Cht. No. 904-1

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*  
Field No. .... Office No. *2871*  
*2872*

LOCALITY

State *Puerto Rico*  
General locality *South and*  
Locality *West Coast*  
*of Vieques Island*  
194

CHIEF OF PARTY

*P.A. Welker*

LIBRARY & ARCHIVES

DATE .....

COAST AND  
GEODETIC SURVEY

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OCT 26 10 09 AM 1907

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FILE  
REFERRED.

ASSISTANT CHIEF

U.S. COAST AND GEODETIC SURVEY  
OCT 26 1907  
Acc. No.

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

O. H. Pittmann  
Superintendent.

State: Porto Rico.

DESCRIPTIVE REPORT.

Hydrographic Sheets Nos. 2871.  
2872.

LOCALITY:

South and West coasts  
of Vieques Island.

1907.

CHIEF OF PARTY:

P. A. Walker, Assistant.

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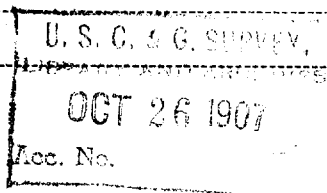
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Post-Office Address: See address at the office

Telegraph Address: \_\_\_\_\_

Express Office: \_\_\_\_\_

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY



Washington, D. C.,

October 22<sup>nd</sup>, 1907.

Mr. O. H. Pittman,

Superintendent, Coast and Geodetic Survey,

Washington,

D. C.,

ANSWERED

OCT 26 1907

Library and Archives.

Sir:

In obedience to "Instructions and Memoranda for Descriptive Reports, 1887," I beg leave to submit the following report on hydrographic sheets Nos. 2871 and 2872:

- The first mentioned is on a scale of 1:20000 and the other, on a scale of 1:40000. The work represented upon the two sheets was executed during the months of February, March and April, 1907, and comprises an hydrographic survey of that region south of Vieques Island, from Ensenada Soube around to Point Salinas, on the north east coast, extending out from shore to a distance of approximately five nautical miles, and to the

northward of East Point to Grampus Shoals in Vieques Sound.

3. The most important part of the work consisted in the development of Enseada de la Chiba, Enseada Honda, Salina del Sur, and their approaches. Several uncharted shoals were also located.
4. In the execution of the work the plan called for in your instructions of January 8<sup>th</sup>, 1907 was followed as near as practical.
5. The method of locating positions of soundings was by simultaneous sextant angles and the three point problem. The positions of the signals were located by means of triangulation, the plane table and sextant, and some were transferred from an hydrographic sheet of a previous season. Lines were run at various distances apart, according to the necessity as indicated in the soundings. Where development was necessary, lines were run from 30 to 100 meters apart. Off shore, as far as the 100 fathom curve, lines were run from 200 to 400 meters apart. Outside of this, only occasional soundings were taken at from one half to one mile apart.
6. The shoals and reefs on the south coast of Vieques, east of Port Real, are well defined and are either dry at low tide or break in a moderate

swell. Water to a depth of 30 feet and more is found within a distance of four or five hundred meters from these shoals, which are three in number and are located as follows: Northeast by east of Port Ferro Light House, distant 1 mile, with a least depth of 2 feet over it; south of Conijo Point, which is dry at low water; and west-south-west of the small island at the western entrance to Bahía del Sur, which breaks almost continuously. To the west-south-west of this small island for a distance of about one mile, it is all broken bottom. In other localities than above mentioned deep water is found within one quarter of a mile from shore.

7. Along this coast are a number of small harbors, but they have very little water in them. Port Mosquito has a depth of 10 to 11 feet, but as only 3 feet was found at the entrance, it is not accessible. Port Ferro has a depth of 10 feet and is well sheltered from all winds except southeasterly; upon entering this harbor care should be used to avoid a wreck which lies on the port hand about one quarter of a mile northwest of the point. The next small bay to the eastward has a least depth of 15 feet, but is exposed to southerly winds and seas. Ensenada de la Chiba has a depth of  $14\frac{1}{2}$  feet, with the

exception of a bar which extends from the north point of Chiba Cay to the main land. This harbor is exposed to southerly winds. Ensenada Honda is the largest bay on this coast. A large reef at the entrance breaks the sea from the southward. Northwestward and about 200 meters distant from the reef, will be found an anchorage with 20 feet or more depth; the bottom, however, is hard and the holding ground is not good. That portion of the bay, east of Jolova Cay, is well sheltered from all winds and has a depth of from 30 to 36 feet, with good holding ground, but it is practically inaccessible on account of a bar from Jolova Cay north to the main shore; although there is a depth of 14 1/2 feet over this bar, the channel leading to it and across it is so circuitous, it is impractical to enter with a vessel drawing more than about 8 feet of water, and then only during the time of a smooth sea and by using the greatest care. Salina del Sur is the most eastern harbor on this coast; a depth of 17 feet is found well up into this bay; it is protected from all winds except south and southeasterly.

8. There are no settlements on the coast. Campo Sids a small village in the interior, is reached by horseback or on foot. Provisions may be obtained here in very limited quantities. P. Sabel Segunda,

at Port Mulas, is the principal town on the island. Fajardo, the nearest city on the island of Porto Rico, is reached by sailing vessels. At this port supplies can be ~~had~~ obtained. The island of Vieques has heliographic connection with the island of Porto Rico. Mail arrives and departs triweekly. Small sailing vessels running between Fajardo and Port Mulas, is the chief means of communication.

9. There is no assistance to be obtained by vessels that might be wrecked on this coast. A wreck would hold together but a very short time.

10. Several large sugar plantations, on the island of Vieques, cultivate most of the available land, which lies in the middle and the west end. The eastern end is a rocky barren part of land. Sugar and molasses are the chief exports. The inhabitants, who are mostly very poor, are employed upon the sugar plantations and are forced to buy from the stores controlled by the plantation owners, where the company script is used in lieu of money.

11. The general character of the bottom over the region sounded is of a fine gray sand, clay and mud, interspersed with reefs of coral. The water is very clear and shoal spots can be seen by keeping a sharp lookout, the indications being usually a change in the

color of the water.

12. During the season while engaged in this work, the weather was almost continuously fair, but on account of the usual strong trade winds, considerable delay was caused in the execution of the inshore work with the launches, as they could be used only under the most favorable conditions. The prevailing winds varied from east-north-east to east-south-east. On account of the rough sea, work was impractical anywhere within a mile of shore whenever the wind was to the southward of east.

13. There are no facilities for hauling out a vessel nearer than St. Thomas, D.W.I.

14. It is recognized that there are several localities within the limits of the work executed, where it is desirable to have some special developments. These localities are off the south coast of the island of Vieques, mostly within one half mile of shore. They can easily be identified by an examination of the sheet. It was the intention to return to this locality for special developments, before the close of the season, but there was no opportunity under favorable conditions, as the wind had hauled more to the southward and the sea was generally too rough. It is recommended that these examinations be made



during the early part of another season. For future use, a tracing has been placed on file on board of the steamer *Bache*, which shows the localities where special developments are required.

15. In accordance with instructions, the work upon the north coast of Porto Rico was taken up after the completion of the work in this locality.

The following is a summary of the work accomplished upon the two sheets:

Number of miles of soundings (statute)	820.
"    "    angles measured	7523.
"    "    soundings	18744.
Area sounded in square statute miles.	60.
Number of hydrographic signals erected.	30.
"    "    hydrographic points located.	19.

Very respectfully,  
P. A. Walker,  
Assistant, C. & G. Survey

V.E.C.  
Nov. 30, 1907.

HYDROGRAPHIC SHEET NO. 2872.

Vieques Sound, Southeastern Part, Porto Rico, by  
Assistant P. A. Welker in 1907.

TIDES.

	Port Real Vieques Island
	ft.
Mean low water, or plane of reference on staff	4.0
Lowest tide observed " "	3.4
Highest " " " "	5.4
Mean rise and fall of tropic tides	1.0

*Applied 12/20-'07. Alger.*

Coast and Geodetic Survey  
NOV 30 1907  
TIDAL DIVISION.

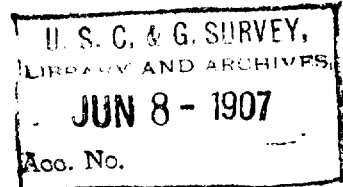
Sheet 2972

The soundings are expressed  
in feet and refer to Mean Low  
water

The 120 ft curve is shown	Blue
600 " " " " " "	Scarlet
1200 " " " " " "	Brown

Plotted in field  
 Verified & inked by JCDom  
 Reviewed & curves by EP Ellis

2872



DEPARTMENT OF COMMERCE AND LABOR

COAST AND GEODETIC SURVEY

O. H. TITTMANN, SUPT.

VIEQUES SOUND, *Southern Part,*  
PORTO RICO

BEGUN FEB. 18

ENDED APR. 12

1907

STEAMER "BACHE"

P. A. WELKER, ASSISTANT,

CHIEF OF PARTY

SCALE 1:40,000

SOUNDINGS AND POSITIONS

PLOTTED BY

R. F. LUCE, AID, C. & G. SURVEY

STATISTICS. SHEET No.39.

Date	Let.	Vol.	Angles	Soundings	Miles	Boat
1907						
* Mar. 10	A	1	148	424	15.2	Launch #32
Total		1	148	424	15.2	
* Feb. 18	A'	0	42	152	5.3	Str. BACHE
Mar. 21	A	1	32	64	5.6	" "
" 22	B	1	218	483	34.6	" "
Apr. 5	C	1	178	332	29.5	" "
" 8	D	2	164	181	27.9	" "
" 9	E	2	256	452	36.0	" "
" 10	F	1	278	492	35.0	" "
" 11	G	1&3	230	435	27.5	" "
" 12	H	3	144	245	16.7	" "
Total		34	1542	2836	218.1	

RECAPITULATION.

	<del>1</del>	<del>148</del>	<del>424</del>	<del>15.2</del>	<del>Launch #32</del>
	4	1542	2836	218.1	Str. "Bache"
Grand Total	<del>5</del>	<del>1690</del>	<del>3260</del>	<del>233.3</del>	

\* This day's work is plotted on sheet 2871