

2627

873  
S7A  
2627  
1902

Diag. Cht. No. 8551-1

Treasury Department,  
U. S. COAST AND GEODETIC SURVEY.

*O. H. Tittmann*  
Superintendent

U. S. C. & G. SURVEY,  
LIBRARY AND ARCHIVES  
DEC 5 - 1903  
Acc. No. 2627

State: *Alaska*

DESCRIPTIVE REPORT.

*Hydrographic* Sheet No. *2627*

LOCALITY:

*Prince William Sound*  
*Valdez Arm Entrance*

190

CHIEF OF PARTY:

*H. P. Ritter*

2627

7

①

Write me at: .....

Telegraph me at: .....

My Express Office is: .....

DEPARTMENT OF COMMERCE AND LABOR,

U. S. C. & G. SURVEY.  
LIBRARY AND ARCHIVES  
DEC 5 - 1903  
Acc. No.

U. S. COAST AND GEODETIC SURVEY,

Washington, D.C.

Dec. 4, 1903.

2-547

~ Descriptive Report ~  
to accompany  
Hydrographic Sheet  
- No. 2627 -

Homer O. Atter  
assistant

Title:

Masury Department  
U.S. Coast and Geodetic Survey  
O.H. Tittmann, Supt.  
Prince William Sound  
Valdez Arm  
Middle Part  
Alaska

Surveyed by Homer P. Ritter, Assistant, Chief of Party  
May 22 to Sept. 17, 1902.  
Scale  $\frac{1}{20000}$ .

Notes: The soundings are expressed  
in fms. and show the depth at  
mean lower low waters - the plane  
of reference.

The 3 fathom curve is shown thus \_\_\_\_\_  
" 10 " " " " \_\_\_\_\_  
" 20 " " " " " \_\_\_\_\_  
" 50 " " " " " \_\_\_\_\_  
" 100 " " " " " \_\_\_\_\_  
" 150 " " " " " \_\_\_\_\_  
" 200 " " " " " \_\_\_\_\_

# Tides - Jacks Bay -

Mean lower low water, or	
plane of reference on staff	4.32 feet
Lowest tide observed " " "	1.00 "
Highest " " " "	19.30 "
Mean rise and fall of tides	9.61 "

Positions plotted and inked by H. P. Ritter  
 Soundings plotted by H. Bernhardt  
 Verified and changed to Lower Low Waters  
 within the 10 fathom curve by F. C. Donn  
 Lettered by C. F. Mc Kenney.

# Statistics for Str Taku

Totals: 2018 Angles - 3421 Soundings - 189.7 Miles - 26 Sq. Miles

Date	Letter	Volume	Vessel
May 22 1902	A	1	Str. Taku
" 23	B	1	"
" 24	C	1	"
Sept. 17	F	1	"
May 27	a	2	Whaleboat
" 28	b	2	"
" 31	c	2	Steam Launch 28
June 2	d	2	"
" 3	e	3	"
" 4	f	3	Whaleboat
" 5	g	3	Steam Launch 28
" 6	h	3	"
" 7	j	3	"
" 9	k	3	"
" 12	l	3	"
" 13	m	3	"
" 14	n	3	Whaleboat
" 16	o	4	Steam Launch 28
" 17	p	4	"
" 18	q	4	"
" 19	r	4	"
" 20	s	4	"
" 28	t	4	"
" 30	u	4	"
July 2	w	5	"
" 3	x	5	"
" 5	y	5	"
" 7	z	5	"

General Description of Valdez Arm.

Valdez Arm, the middle part of which comprises the Hydrographic Sheet, is the north eastern one of the numerous long, deep <sup>and</sup> comparatively narrow waterways which extend inland from Prince William Sound.

At the extreme eastern end of the Arm is situated the town of Valdez.

The Arm is about 30 miles long <sup>and</sup> at its junction with the Sound is from 6 to 8 miles wide; from here the Arm extends in a northeasterly (true) direction, gradually becoming narrower until Valdez narrows (distant 15 miles) are reached when the width for a short distance is less than a mile, but soon widens out again.

The Arm now takes an easterly direction and has a width of from 2½ to 3 miles to the end.

For detailed descriptions of the shoreline, topography - fauna, flora etc. of this vicinity see Descriptive Reports accompanying Topographic Sheets Nos. 2565 and 2574 <sup>and</sup> Hydrographic Sheet No. 2554

The hydrography shown on the sheet includes that part of Valdez Arm which begins at a point 2 miles northeast of the Narrows (where it joins Hydrographic sheet No 2554) extends in a southwesterly direction as far as the mouth of Galena Bay and includes the minor fiordlike Arms known as Jacks, Galena and Sawmill Bays.

The main body of the Arm in this stretch is very deep, the hundred fathom Curve was found to be not far from the shore on either side.

The greatest depths were found in the western end of this part of the Arm; the lead showing quite a large area having a depth of 200 fathoms (1200 feet)

The bottom of the main body of the Arm gradually rises as you proceed toward the head of the Arm.

In the Narrows the deepest water found was 135 fathoms.

To the eastward of the Narrows the main waterway again becomes a little deeper, the general depth being about 142 fathoms. Soon after leaving the Narrows.

No obstructions are found in the Channelway of the part of the Arm, <sup>shown on the sheet</sup> except in the Narrows where a rocky ledge lies midway between the two shores.

This ledge is of small extent, deep water being found all around it as a few hundred yards from the highest point of the ledge.

This highest point consists of a pinnacle rock a few square yards in extent and is barely under water at extreme high tides.

Between the above mentioned reef and the northwestern shore lies a small island.

The waterway between the rock and the island is free from obstructions, being about 40 fathoms deep in the middle.



## Jacks Bay:

The bay which indents the right hand or eastern side of Valdez Arm just before you reach the narrows (when going towards the head of the arm) is a long, remarkably straight and comparatively narrow fiord and is locally known as Jacks Bay.

At the entrance the bay is a mile wide; about  $1\frac{1}{2}$  miles inland a group of narrow, practically connected islands, which are separated from the mainland by a narrow channel, divide the bay into two forks; the left hand or northern one is  $1\frac{3}{4}$  miles long; the right hand or southern one extends inland 4 miles and has an approximate width of  $\frac{1}{2}$  a mile for the entire distance.

On the south side of the bay near the entrance are found two small coves. The first one just inside of the entrance is full of rocks, but in the second one ( $1\frac{1}{2}$  miles from the entrance of the bay) fair anchorage for vessels can be found.

The islands, rocks, coves, depth of water and nature of bottom are shown on the sheet.

### Galena Bay:

This bay indents the eastern side of Valdez Arm about 7 miles south of Jacks Bay.

The bay is wider than Jacks Bay and not as straight.

At the entrance to the bay there are several small islands and rocky ledges with deep water between them and the shore on either side.

Inside the bay the deep water extends close to the shore on both sides, the average depth midway between the shores being over 100 fathoms for about 3 miles from the entrance. Here the trend of the bay changes the eastward; it also narrows suddenly and the bottom rises quickly for a short distance, the depths and nature of the bottom changing rapidly. Just before reaching the narrowest part are sunken rocks and

a small island; a little farther on the bay widens out again, taking a more southerly direction with an average depth of 60 fathoms midway between the two shores.

Towards the head of the bay the bottom rises gradually and terminates in muddy and rocky flats which are out of water at low tide, here also a narrow channel connects with a shallow basin of small extent.

Just east of the narrows and on the northern side of the bay a stream of considerable size enters, having an extensive mud and gravel flat in front of it. Here are a number of Indian huts which are occupied during the salmon fishing time.

At the head of Galena Bay a number of copper lodes were being extensively explored during the summer of 1903.

Spruce and hemlock timber was also being cut for the Valdez market.

The islands, rocks, coasts, depths of water and nature of bottom are shown on the sheet.

## Sawmill Bay:

This bay indents the northwestern shore of Valdez Arm about 5 miles southwest of the narrows, and is only a small bay (the head being only about 2 miles from the entrance) but nevertheless is a good harbor of refuge for vessels bound for Valdez when caught in some of the thick weather or snow storms which ~~are~~ often occur during the winter months. The bay is well sheltered and has good anchorage bottom.

Immediately from deep water in the main Arm the bottom rises at the entrance to this little bay and an average of 40 fathoms will be had until a little inside where an average of 8 fathoms is found with good sticky bottom.

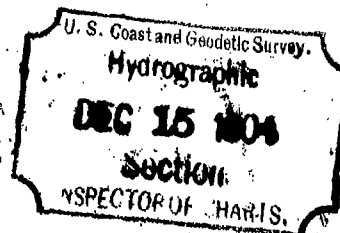
The area of anchorage extends well towards the head where the bay terminates in a big mud flat fully exposed at low water.

About half way up the bay from

its entrance, a small area turns westerly; here a Valdez company is operating a small sawmill, on account of which the bay is locally known as Sawmill Bay.

It is also sometimes referred to as Dogfish Bay.

REPORT  
on  
HYDROGRAPHIC SHEET  
No. 2627.  
Prince William Sound,  
Valdes Arm,  
Middle part,  
Alaska.  
Assistant Ritter,  
1902.



The original records have been inked over the pencilled soundings, etc.

The time when the position angles were taken was not given at 222 positions out of a total of 2538.

There are many mistakes or breaks in the recorded time.

In many cases the interval between the first and second soundings is too great.

The tides were read hourly a part of the time when soundings were taken, which made it necessary to interpolate a great deal to get out the reducers.

There are a number of hydrographic signals on the sheet located, but the only records for locating a part of them is found on the fly-leaves of two sounding books. Many have no records for locating. Some of the signals, notably, Seal, Pup and Oar have only cuts from Free and Rat, which are not located by any good angles found so far.

The shoreline in several places on sheet 2628 has been changed to agree with hydrographic signals and ends of sounding lines, but no mention is made of the fact in the records. The positions in the doubtful places plot practically as shown.

F.C.D.

*Mem. This report is to be sent to my files after the sheet has been approved by the Superintendent  
Lps. Insp. of Chart  
10.31.03*

*This criticism of  
Chart 2627 is  
both erroneous +  
unjust - Feb. 1-1904  
Homer P. Ritter*