

4297

Diag. Cht. No. 8503-2, 8552, 8554-1.

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: Alaska

1-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 1-4297

LOCALITY:

S. W. Alaska

Cook Inlet, ~~Kachemak Bay~~

Kachemak Bay- Entrance to Halibut Cove

1923

CHIEF OF PARTY:

H. A. Seran, H. & G. Engr.

4297

DESCRIPTIVE REPORT
to
ACCOMPANY HYDROGRAPHIC SHEET NO. 1

Kachemak Bay, Cook Inlet, Alaska
Str. Discoverer, H.A. Seran, U.S. G. Engr., Comdg.
Instructions Dated Febuary 11, 1923.

LIMITS

The hydrography covered by this sheet includes the lower or outer section of Kachemak Bay located northeasterly of a line joining Homer and Gull Island, and extending up the Bay to a point off Glacier Spit where it is joined to Hydrographic Sheet No. 2. The sheet joins Hydrographic Sheet No. 3204 near the meridian passing thru Gull Island.

GENERAL DESCRIPTION

It was found that the water on the north side of the axis of the Bay was shallow and had a gradual slope, while the water south of the axis was deep and remained so until within 1/8th of a mile of the north shore.

That fraction of the hydrography in COAL BAY included on Hydrographic Sheet No. 3204 and duplicated by this seasons work was found to agree very satisfactorily. A few soundings immediately off Gull Island, covered by the Hydrographic Sheet No. 3204 and this one evidenced a few discrepancies which were probably occasioned by the irregularity of the bottom.

With the exception of a 50 fathom cavity located 2 miles north-east of Gull Island, the bottom is fairly regular.

The 30 fathom curve extends the entire length of the sheet and is 1 mile wide at its narrowest point;- at the northeast boundary of the sheet.

Due to the fact that there is a considerable quantity of coal washed on the southwesterly shore of Homer Spit, it is the opinion of the writer that a submerged coal vein lies close offshore.

OUTLYING DANGERS

At the entrance to HALIBUT COVE and situated about 1 mile east of Halibut Cove Light, there is a shoal covered by 5 fathoms of water. This was developed thoroughly.

CURRENTS

Current observations were not included in the seasons work.

The tidal current off Gull Island and Homer seemed to be the swiftest and approximated between 2 and 3 knots. The tidal current at the entrance to HALIBUT COVE ran between 1 and 2 knots.

INSHORE DANGERS

With the exception of a rock "awash" at the entrance to the little cove included between Ismailof Island and the southshore, there are no dangers.

ANCHORAGES

HALIBUT COVE is a good harbor well protected by mountains which practically form a wall surrounding almost the entire harbor.

COAL BAY, sheltered by Homer Spit and the bluffs of the northshore can be used as a good anchorage. Due to the flatness of Homer Spit, its protection from the wind on the southwest is not very good.


SURVEY METHODS

With the exception of about three square miles of hydrography done by the ship, the work was covered by two parties using Steam launch No. 47 and Motor Sailer No. 8613.

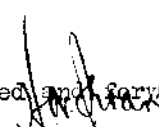
During the progress of the hydrography on this sheet, all tide observations were made on the tide staff situated in HALIBUT COVE.

Soundings less than 15 fathoms were taken by the handlead, the sounding machine being used for greater depths. The leadline used was a Samson phosphor bronze wire center tiller rope No. 8, which on the whole showed very little shrinkage.

Respectfully submitted,


Hydrographer.

Approved and forwarded:-


H. A. Seran, H. & G. Engr.,
Chief of Party

STATISTICS SHEET #1

Date, 1923	Letter	Vol- ume	Positions	Soundings	Miles Statute	Vessels
May 21	a	1	86	189	10.0	Motor Sailer #14812
" 22	b	1	11	52	2.2	do
" 31	c	1	16	33	3.1	Steam Launch #47
June 4	d	1	56	109	10.0	do
" 5	e	2	62	118	14.0	"
" 6	f	2	73	140	17.6	"
" 7	g	2	51	120	9.0	"
" 9	h	2	59	137	12.2	"
" 11	j	3	39	74	8.2	"
" 12	k	3	114	253	25.6	"
" 13	l	3	76	235	17.5	"
" 14	m	4	12	22	2.0	"
" 18	n	4	49	224	9.0	Motor Sailer #8613
" 19	p	4	36	166	7.5	do
" 20	q	4	83	357	16.0	"
" 21	r	4 & 5	96	449	17.4	"
" 22	s	5	91	398	17.0	"
" 23	t	5	38	103	4.4	"
" 30	u	5	30	68	3.6	Steam Launch #47
July 2	v	5	12	51	2.0	do
" 16	w	6	89	167	19.6	"
" 23	x	6	107	186	19.6	"
" 24	y	6	112	226	20.3	"
" 25	z	7	33	60	3.0	"
" 23	a	1	67	206	21.0	Motor Sailer #14812
" 24	b	1	55	157	15.0	do
June 15	A	1	32	108	10.4	Discoverer
" 16	B	1	100	228	19.7	"
July 2	C	1	34	42	10.5	"
Total			1719	4678	347.4	

Area 38.2 square statute miles

Hydrographic Sheet No. 4297.
Kachemak Bay "S.W. Alaska"

The work on this sheet from projection to pencil soundings was done in the field. The area covered by this survey has been well developed and no additional work in this area appears necessary. The shoal spots and the areas inside the 10 fathom curves have been closely developed and indications of other shoals or pinnacles do not appear.

The projecting, in general, was found accurate, only a few errors being found.

The plotting was not quite up to standard of the office as numerous errors were discovered. These errors consisted principally in time spacing and, in a few instances of plotting more soundings between positions than recorded.

No trouble was found in the records as they are well kept and easily understood.

John D. Torrey Sr.
2/13/24

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON March 29, 1924.

SECTION OF FIELD RECORDS

Report On Hydrographic Sheet No. 4297

Kachemak Bay, Alaska

Surveyed in 1923

Instructions dated February 21, 1923.

Chief of Party, H. A. Seran.

Surveyed by C. L. Garner, M. O. Witherbee, J. A. Bond, J. M. Smook
and J. F. Downey.

Protracted and soundings plotted by J. F. Downey.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions.
2. The plan and extent of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions except that there is not enough development in Halibut Cove and approaches.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. The field plotting was completed to the extent prescribed in General Instructions. The plotting was defective in that time intervals between soundings were not adhered to and in some cases more soundings were plotted than were recorded.
7. The junctions with adjacent sheets are satisfactory.
8. The area of this sheet is completely surveyed except Halibut Cove and approaches. Additional work is needed on the spit extending northwest of signal Sum and the boat passage inside of Gull Islands. The drag should be used if possible on these places.

9. The work done by the ship on July 2 was for the purpose of testing sounding tubes and was not plotted on the smooth sheet. An examination showed that the quality of the soundings was satisfactory so it was plotted in the office. However, as the soundings were found to plot on an area well covered by the regular system of lines and they contained no information of value, they have been omitted.
10. The character and scope of the surveying is good and the field drafting is fair.
11. Reviewed by E. P. Ellis, March, 1924.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4297 1

State ~~NW~~ Alaska

General locality ^{S.W. Alaska} ~~Cook Inlet~~

Locality ~~Kachemak Bay~~ - Entrance to Halibut Cove

Chief of party H. A. Seran, Hyd. & Geod. Engr.

Surveyed by C.L. Garner, M.O. Witherbee, J.A. Bond, J.M. Smook, J.F. Downey

Date of survey May to July, 1923 inclusive.

Scale 1-20,000.

Soundings in Fathoms

Plane of reference M L L W.

Protracted by J.F. Downey. . Soundings in pencil by J.F. Downey.

Inked by J. D. Torrey. . Verified by J. D. Torrey.

Records accompanying sheet (check those forwarded):

Des. report, Tide books, _____ Marigrams, 2 Boat sheets,

Sounding books, _____ Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks:

Chart 8531
Homer Harbor (Anset)

Applied Fully After Verification, Review
and Inspection 12/11/64 Howson