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1908

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

C. J. G. SURVEY,
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DEC 11 1908

Acc. No.

O. H. Tittmann
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *2821^a*

LOCALITY:

It. Mine Company,
Kasaan Bay

1908

CHIEF OF PARTY:

R. B. Derickson

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U.S.S.Gedney. September 1908.

Descriptive Report
to
accompany topographic sheet
showing improvements by the
IT Mine Co.
Kasaan Bay,
S.E.Alaska.

U.S.S. "Gedney" September 1908.

Descriptive Report of Topographic Survey of Kasaan Bay,
S.E. Alaska.

2821^a x

This sheet was made for the purpose of determining the positions of hydrographic signals and to orient the hydrographic sheet. It shows the improvements made by the "It" Mine Co. and incidently about two miles of shore line were surveyed, the high water line being given and an approximate low water line. The "It" Mine Co's. wharf consists of a single track tram 24" gauge, about 1100 feet long terminating at its outer extremity in a platform sufficiently large for handling of freight. A small shed is located on the platform. The tram is not straight. At the inner end of this wharf an ore bunker of 900 tons capacity is being erected; from this bunker the tram continues with a 3% grade to an upper ore bunker. A traverse was carried along the tram, and in some positions, set ups were necessary every 10 meters, back and foresights being used. Mr. Barber the constructing engineer, informed me that he obtained differences of 1° in the magnetic variation in this vicinity due to deposits of magnetite. The difference in length of the tram as given on my sheet differs 20 feet from that indicated by Mr. Barber's plat. From the second bunker a gravity tram, 3 rails about 6 meters wide, well constructed, with a grade varying from $15'$ to $30'$ extends 1225 feet to an upper bunker, which is located about 30 meters from the first tunnel. The tunnel is about 8 feet wide 6 feet high and about 100 deep and approximately 540 feet above sea level. The ore is chalcocite. About 2000 feet from

0 ?

this tunnel is another tunnel, about 80 feet long. It was not practicable to carry a traverse to the second tunnel without considerable clearing. The bunkhouse and two adjoining buildings located midway between the middle and upper bunkers, were sketched in their approximate positions, rod readings to them not being obtained as the trestle, the only place available afforded a very insecure mounting for the plane table. The houses to the east of the wharf are occupied by employees of the company. The building to the west is an old deserted shack, a homestead notice dated 1887 or 1897 being posted there.

Stations Crook, E.F.D. 1906 and Scrub #2 E.F.D. 1906 were standing. A stadia base was measured, from Crook, along the sand spit. Rod readings were taken from each end of the base to \odot Stub, \odot Beacon, \odot Range; Stub was then occupied and rod readings were taken to each end of the base, giving telemeter measurements of the three sides of the triangle. All the other stations were cut in and occupied in turn with the exception of the range poles, Scrub #2, Shack and Sand. Range and Beacon are range poles indicating the channel. I took sextant angles at most of the stations; they are given in the accompanying descriptions of stations.

John Maher

Ald, C. & G. Survey,

Topographer.

Approved

R. B. Derickson

Asst., Chief of Party.

Plane Table Positions

2821^a

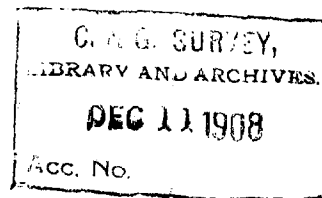
to

accompany Topographic Sheet, showing improvements
made by "It" Mine Co., Kasaan Bay, S.E. Alaska.

Crook \triangle	Covers at H.W.	Est. by E.F. Dickins, Asst. 1906
Stub \circ	Approx. 5 feet	Topographic flag
Rock \circ	Covers at H.W.	Marked
Beacon \circ	Approx. 20 feet	
Range \circ	" 20 feet	
Shack \circ	" 20 feet	Shack on opposite side of bay
Tuft \circ	" 10 feet	Marked by +
Far #2 \circ	" 05 feet	Topographic flag
It \circ	" 05 feet	" "
Wharf \circ	" 10 feet above top of wharf.	" "

Survey made without triangulation data. D.M's D.P's
not known. Lat. and Long. not definitely known.

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U.S.S. "GEDNEY" SEPTEMBER 1908.

DESCRIPTIONS OF STATIONS;
ERECTED, OR RECOVERED AND
USED IN HYDROGRAPHIC AND
TOPOGRAPHIC WORK AT
KASAAN BAY. S.E. ALASKA.

CROOK.

Located on sand spit running south from wharf. It is below the high water line and is marked by hole drilled in top of small boulder. Station is about 20 meters from grassy knoll on reef, which does not cover.

The following sextant angles were taken:-

Stub - Tuft	24° 59' 30"
Tuft - Beacon	66 49
Beacon - Rock	55 07
Rock - Range	33 55
Range - Wharf	57 05
Wharf - Far	08 48
Scrub - Shack	126 33
Scrub - Beacon	65 04
Beacon - Shack	61 28
Scrub - Sand	106 33
Sand - Wharf	104 35

Established by E.F. Dickins, Asst. in 1905.

STUB. Located on the S.W. side of the first and outer high water island about 1/2 mile E. from Wharf, temporary flag.

The following sextant angles were taken:-

Tuft - Beacon	99° 10'
Beacon - Range	28 29
Beacon - Creek	27 52
Range - Wharf	37 50
Wharf - Far	13 24
Far - It	11 24
Range - Ore Bunker	58 32

ROCK. Located on highest rocky boulder on reef, making the South side of channel. 3/4" hole 1" deep was drilled on top of boulder. This boulder is the highest on reef and may readily be found at half or three quarter tides, as it is the only one exposed.

Sextant Angles:-

Creek - Scrub	47° 34' 30"	Creek - Stub	13° 15'
Scrub - Sand	116 06	Stub - Beacon	10 02
Sand - Shack	24 02 30	Beacon - Tuft	10 35
Shack - Far	115 33		
Far - Wharf	05 20		
Wharf - It	21 21		
It - Range	17 44		
Range - Creek	12 24		

Scrub #2, in hydrographic records is called Old.

BEACON. Name given to the outer range pole in centre of channel leading to the IT mine. These range poles appear to be rather insecure and may have to be replaced. Slats were nailed horizontally on these poles.

RANGE. The range pole in centre of channel nearer to the wharf. This pole also is rather insecure. Four cross pieces of wood were nailed on alternate sides of the pole, diagonally forming X's.

SHACK. Designates an old house on the opposite side of the bay and was used as a signal, or a signal was erected near it, during 1905. Sextant angles given in these descriptions apply to the shack itself.

WHARF. Flag attached to cross piece running from small shed on outer end of wharf to a pole attached to outer edge of wharf, about 10 meters from location of tide staff.

- Sextant angles:-

Stub - Creek	90° 55'
Creek - Beacon	07 54
Beacon - Range	04 31

TUFT. Located on rocky point about 400 meters S.E. from signal
Stub. Station is marked by cross 6"x 6" cut in rock, \triangle was
cut in sloping face of rock about 12 feet distant and \triangle was
blazed on tree about 15 meters distant from signal.

#2
FAR Flag nailed to large tree, driftwood, on W side of small bight
W. of wharf. Approximate location Far #1 1905.

Sextant angles:-

Stub - Wharf	29° 35'
Tuft - Wharf	29 19
It - Crook	30 19
It - Range	34 22
Tuft - Left tang. large green island	115 40
Left tang. - Right tang. large green island.	26 02

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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: *Alaska*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *2821^a*

LOCALITY:

"It" Mine and Vicinity
Kasaan Bay.

1908.

CHIEF OF PARTY:

R. B. Derickson.

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SAILING DIRECTIONS TO ACCOMPANY HYDROGRAPHIC SHEET
OF THE HARBOR AT "IT" MINE, KASAAN BAY/

C. & G. SURVEY,
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FEB 9 - 1909

Acc No.

"It" Mine Harbor, Kasaan Bay: This harbor is very narrow, the entrance being less than 150 meters wide, and gradually widening out to 250 meters, it is about three quarters of a mile long; it is surrounded by a rocky shoal, inside of this shoal the bottom is mud. There are two beacons (wood piles driven into the mud) marking the entrance on the starboard side of the channel. In approaching the harbor the best course is to keep these two beacons in range, this course is N.47 W. (Mag.) until within 200 or 300 meters of the outer beacon, then change the course so as to leave the beacons about 50 meters on the starboard side; after passing the inner beacon the ship should be kept on the same course which will be N.47 W. (Cor.Mag.) for a distance equal to the distance between the two beacons, about 250 meters, the ship may then be headed for the wharf; this is necessary in order to clear a spit with a depth of 9 feet at low water which runs out 75 meters from a line between the inner beacon and the wharf, and is 240 meters from the inner beacon. This spit should be marked with another beacon or buoy, as a vessel would be very liable to go aground there. The harbor opposite the wharf is about 250 meters wide this affords turning room.

A least depth of 16 feet at low water was found in the channel; care must be taken not to get too far over to the south or left hand side of the channel as the rocky spit at

the end of the reef forming the harbor runs out a considerable distance. If the above directions are followed this will clear everything.

A rock shown on the chart and marked P.D. about one mile off the entrance of the harbor apparently does not exist, and soundings taken all around the vicinity of the rock, showed a depth of 45 fathoms, soft bottom. Indians living in this locality were questioned and said that no detached rock or shoal existed in the place shown on the chart, or anywhere near it.

On each side of the channel of the "It" Mine wharf the bottom is irregular. No boulders are known to exist either in the channel or the open water out from the wharf, but where the water begins to shoal the bottom is strewn with small rocks and boulders; fifteen feet can be carried to the wharf.

J. M. Coleman, Watch Officer.

Hydrographer.

Approved,

R. B. Atkinson

Asst., Comdg.

Aug. 19, 09.

D. & E. DIVISION.

I send you herewith
a report on the
verification of
Hyd. Sheet No. 21^a
by Party of Mr. C.
Gedney, R. P. Derision
County.

If it is desired
to forward the report
at this time I
suggest that a
copy be made and
forwarded.

This Division does not know
how much importance was attached
to this work or how much time
was available; these facts should
be taken into consideration in connection
with the matter of calling the attention
of the field party to the defects noted.

Report on Hyd. Sheet 2821^a.

The projection on this sheet is very uncertain as there was very little data to construct it by.

The system of sounding lines was not well chosen as several places of only average importance are thoroughly examined, while frequent open spots appear in the channel. A weak combination of signals was used for many positions, giving reverses or nearly so. The time record is erroneous and misleading while the general record is incomplete and unreliable.

The protracting and plotting was mechanically done evident blunders being ignored.

The soundings are inaccurate and unreliable and many shoal spots which appear on the sheet may not exist. Most of these doubtful soundings are marked in pencil on the sheet, and for this reason the sheet has not been cleaned before turning it in.

The bottom is very irregular at the crossings; but this irregularity is not indicated by adjacent soundings on the same line or by the incomplete survey of 1906.

The channel is apparently good for greater draft than given in the Descriptive Report, (sixteen feet); about twenty three feet being the maximum draft.

~~There is no indication of the + P.D. where charted on sheet~~ 8100 (one mile south east of Entrance), was searched for, but the methods used, seem to be inadequate to meet the requirements of the scale adopted. R. L. Johnston Draftsman 8/17/09

The topography from sheet 2821^a has been transferred to this sheet in order to get rid of 2821^a R.L.J.

R.L.J.
8-19-09