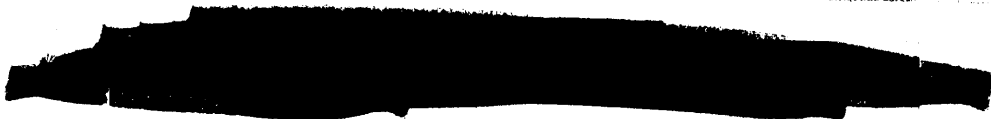


6382

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L. O. Colbert, Director

Aleutian Islands
State: ~~Alaska~~

DESCRIPTIVE REPORT

~~Topographic~~ } Field No. 2438
Hydrographic } Sheet No.
Reg. No. H-6382

LOCALITY
North Side of Umnak I.
~~Aleutian Islands~~

~~Umnak Island~~

Inanudak Bay & Vicinity

1938

CHIEF OF PARTY
A. M. Sobieralski, H.&G.S.

6382

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 2438

REGISTER NO. H-6382 H 6382

State ~~Alaska~~ Aleutian Islands

General locality North Side of ~~Umnak~~ Island

Locality Inanudak Bay, ~~Umnak~~ Island & Vicinity

Scale 1:20,000 Date of survey May to September, 19 38

Vessel U.S.C.&G.S.S. SURVEYOR & Launches

Chief of Party A. M. Sobieralski

Surveyed by G.L.B.; J.B.; G.A.N.; J.D.T.

Protracted by D. E. Sturmer

Soundings penciled by D. E. Sturmer

Soundings in fathoms feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by _____

Inked by Francis P. Kelly

Verified by Francis P. Kelly

Instructions dated February 3, 19 38

Remarks: Project No. HT-218

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET No. H-6382, FIELD No. 2438

ALEUTIAN ISLANDS

INANUDAK BAY, UMNAK ISLAND

U.S.C.&G.S.S. SURVEYOR, A. M. SOBIERALSKI, Commanding

Scale 1:20,000

INSTRUCTIONS:

This survey was made under authority of the Director's Instructions to the Commanding Officer, U.S.C.&G.S.S. SURVEYOR, dated February 3, 1938, Project No. 218.

SURVEY METHODS:

The positions of soundings on this sheet were determined by sextant fixes on objects or signals ashore. All signals were located by triangulation or plane table in accordance with standard practice, except signal CUT, Lat. $53^{\circ} - 25.4'$, Long. $168^{\circ} - 24.5'$, which was located by sextant cuts from the ship. Signal CUT was beyond the limits of the work on Topographic Sheet No. T-6642, Field No. U-38.

Depths were determined by fathometer on the ship and wire and hand lead on the launches. All fathometer soundings were corrected for temperature, salinity, index, etc. in accordance with the Hydrographic Manual and Field Memorandums.

DISCREPANCIES:

Occasional discrepancies at crossings are found but no important ones were noted.

Attention is called to unusual soundings listed below which might warrant additional development when convenient opportunity occurs:

<u>Lat.</u>	<u>Long.</u>	<u>Pos.No.</u>	<u>Depth</u> fms.	<u>Remarks.</u>
53 - 15.8	168 - 39.7	41(1)-42(1)	23 betw. 2 28's	These sndgs. were all checked as all right in the record book at the time of sndg. ✓ Noted in review.
53 - 16.7	168 - 37.4	121(j)	7-3/4	The bottom is very uneven to the N.W. of Cape Ilmalianuk. Sndg. is probably on a rock. The sndg is very close to a rock awash at H.W. (Signal Ira) ✓ Noted in review.

<u>Lat.</u>	<u>Long.</u>	<u>Pos. No.</u>	<u>Depth</u>	<u>Remarks</u>
53 - 15.6	168 - 24.9	8(b)-9(b)	rock awash outside 3 fms.	This area is very foul, covered with heavy kelp, and full of rocks and pot holes. The sndgs. shown are all feasible. Survey satisfactory. ✓
53 - 16.8	168 - 21.1	201-202(d)	5 outside of 7	This area is very foul off this point for 100 meters. Noted in review. ✓
53 - 20.5	168 - 26.4	32(p) 39p	10- $\frac{1}{4}$	The bottom here is very rocky, often the lead would wedge in a crevice. So, this sndg is probably on a rock. Survey satisfactory. ✓
53 - 17.5	168 - 32.2	141-142(D) 152-153(D)	31	Indicates a ridge slightly shoaler than surrounding depths. Noted in review. ✓
53 - 18.1	168 - 32.5	24-25(F)	29	Sndg slightly shoaler than surrounding depths. The bottom is uneven in this vicinity especially to the southward. Noted in review. ✓
53 - 19.3	168 - 26.7		17	The Motor Sailer spent several hours in drift sndg over this area to determine the least depth. investigation satisfactory. ✓

DANGERS:

There are no dangers to navigation on this sheet except off-lying rocks and reefs close to shore. ✓

The most important rocks, reefs and foul areas are listed below:

A. There is foul area extending about 330 yards off shore from topographic signal WAY on Cape Ilmalianuk to signal LOC in Geyser Bight. Outside this foul area are the following rocks: ✓

(1) A large rock (signal IRA) awash at high tide, lies 550 meters (600 yards), 310° T. from Cape Ilmalianuk. This rock is very conspicuous except at high tide and a calm sea. ✓

(2) A sunken rock covered by 1-2/6 fms. lies 675 yards 295° T. from Cape Ilmalianuk. This rock is not a menace to navigation as it lies inside of the large rock awash mentioned above.
 53° 16.6
168° 37.4 ✓

(3) A shoal covered by 5-2/6 fms. and surrounded by kelp lies 270 yards offshore and 400 meters, 50° T. from signal BAR, in the western part of Geyser Bight. ✓✓✓

(4) A rock awash lies 380 yards offshore and 240 meters, 358° T. from Signal HED in the western part of Geyser Bight. ✓✓✓

(5) The rocky islets off Triangulation station NANU appear as the shoreline and so are self evident. ✓✓✓

B. A small rocky islet lies 330 yards offshore, and 460 meters, 300° T. from signal PRY, in the eastern part of Geyser Bight. ✓✓

C. A shoal covered by ~~5-4/6~~^{5 1/6} fms. and surrounded by kelp lies 290 meters (315 yards), 285° T. from triangulation station NUDAK on Broken Point. ✓✓

D. Kelp and foul area extend about 110 yards offshore in Southwest Anchorage. ✓✓

E. A shoal makes out for about 660 yards from the eastern side of Southwest Anchorage. This area, Latitude 53° - 15.8', Longitude 168° - 24.8', is covered with heavy kelp. ✓✓

F. A foul area extends about 440 yards offshore from signal INK in Northern part of Northeast Anchorage to signal SOB on the north part of Cape Kigunak. This area is covered with heavy kelp and has numerous sunken rocks in it. A small group of rocks awash lie 250 yards offshore south of Cape Kigunak, and 220 meters, 185° T. from signal FEE. ✓✓

Two rocky islets, triangulation stations GROAN and topographic signal YE, which lie about 220 yards west of Cape Kigunak are very conspicuous, especially from a northerly or southerly direction. ✓✓✓

G. The least depth found on the shoal which is 1300 yards southwest of Cape Kigunak and 1230 meters, 235° T. from signal FEE, was 17 fathoms. The motor Sailer spent several hours drift sounding over this area. ✓✓

H. Along the southern part of Cape Aslik the foul area extends about 550 yards offshore. This area is covered with kelp and there are numerous sunken rocks and rocks awash in it. ✓✓✓

I. Two breakers, about 200 or 300 yards offshore and 1100 yards north of Cape Aslik, were cut in from the ship. The locations are only preliminary as they are beyond the limits of the work on this sheet. It is assumed that these breakers will be accurately located when the work in this area is accomplished. ✓✓
left in pencil

CHANNELS:

The channel into the main part of INANUDAK BAY, and into Northeast Anchorage, Cinder Cove, Hot Springs Cove and Southwest Anchorage are wide and unobstructed. ✓

ANCHORAGES:

The inner part of Inamudak Bay affords good anchorage in southerly, easterly, and northerly weather. By shifting from one anchorage to another, shelter can be found from all directions except northwest. There is no anchorage which will give shelter from severe northwesterly weather.

Stepanof

~~Cinder~~ Cove affords the best shelter in this vicinity from southeast around to North-northwest. The anchorage used by the Surveyor was in 8 fms. with Cape Kigunak just open of Cinder Point, bearing about 315° T. When the wind gets around to south or southwest this anchorage becomes uncomfortable and southwest anchorage is better.

Lat. 53° 17'
Long. 168° 21'

Hot Springs Cove affords shelter in southerly and easterly weather but ~~Cinder~~ Cove is considered more desirable.

53° 16'
168° 22'

Stepanof

Gumstary Cove

~~Southwest~~ anchorage affords shelter from west-northwest around by west to southeast. The anchorage used by the Surveyor is in 17 fathoms with the large pinnacle rock off Broken Point bearing 327° T.

53° 16'
168° 22'

Izhiga Cove

~~Northeast~~ anchorage: Anchorage can be found 0.3 mile from shore in 8 to 10 fathoms. Better shelter from Northerly weather can be found in ~~Cinder~~ Cove.

53° 19'
168° 23'

Stepanof

Geysier Bight and the bight north of Cape Kigunak afford some protection in southerly and easterly weather but are not recommended in heavy weather.

53° 16'
168° 23'

COMPARISON WITH CHART:

Chart 8802 is of such small scale that it is difficult to make a comparison. ~~CINDER~~ COVE is not shown distinctly on this chart and GEYSER BIGHT is not as deep as shown. (See Note Page 5)

CURRENTS AND TIDE RIPS:

There are no current stations on this sheet. Currents of about 2 to 3 knots were noticed along the general trend of the shoreline due to tide. The flood is to the northeast and the ebb to the southwest.

boat

Tide rips large enough to make small/navigation difficult occur off CAPE ILMALIANUK and CAPE ASLIK, while small tide rips occur off BROKEN POINT and CAPE KIGUNAK. *No positions, not shown on sheet*

GEOGRAPHIC NAMES:

The geographic names are discussed in detail in the descriptive reports of the following topographic sheets which cover this area:

- Sheet T-6642, Field No. U-38 - Cape Aslik to Cape Kigunak.
- Sheet T-6643, Field No. R-38 - Cape Kigunak to Broken Point.
- Sheet T-6645, Field No. T-38 - Broken Point to Cape Ilmalianuk.

COAST PILOT NOTES:

Coast Pilot notes for this area are being submitted in a special report.

SPECIAL NOTE:

A small area between ^{Cemetery Cove} Southwest Anchorage and Broken Point, Latitude $53^{\circ} - 15.9'$, Longitude $168^{\circ} - 26.5'$, was developed on a 1:10,000 scale on the boat sheet but plotted on a 1:20,000 scale on the smooth sheet.

This close development was accomplished because the Surveyor obtained water at this point, and close development was necessary for this purpose. Since there are no special dangers in this area it was felt that the smooth plotting on 1:20,000 scale was sufficient.

Respectfully submitted

Dale E. Sturmer

DALE E. STURMER, Aid
U. S. Coast and Geodetic Survey

Forwarded:

Ray L. Schoppe

RAY L. SCHOPPE, H.&G.E.
Commanding Officer
U.S.C.&G.S.S. SURVEYOR

NOTE:

On Chart 8802 there are two small islands shown north of Cape Kigunak. There are no islands in this vicinity, but two rocky islets mentioned under paragraph F, page 3 of this report. A similar island, shown north of Cape Ilmalianuk, is also non-existent, but there is a rock awash mentioned under paragraph A - 1, page 2 of this report.

Dale E. Sturmer

APPROVAL SHEET

to accompany

HYDROGRAPHIC SHEET No. H-6382, FIELD No. 2438

This sheet, the records, and the accompanying
descriptive report have been reviewed and are approved.



A. M. SOBIERALSKI, H.&G.E.
Chief of Party

STATISTICS

to accompany

HYDROGRAPHIC SHEET No. H-6382, Field No. 2438

Ship SURVEYOR (Red Caps)

<u>Date</u> 1938	<u>Day</u>	<u>Vol.</u>	<u>No. of</u> <u>Positions</u>	<u>No. of</u> <u>Soundings</u>	<u>Statute</u> <u>miles</u>
✓ June 8	A	1	36	139	12.5
✓ July 6	B	1	39	148	14.0
✓ July 13	C	1	120	551	41.7
✓ Aug. 1	D	1	196	617	60.7
✓ Aug. 13	E	2	225	843	77.0
✓ Aug. 15	F	2	134	511	46.5
✓ Aug. 16	G	2 & 3	247	936	81.2
✓ Aug. 18	H	3	140	489	38.9
✓ Sept. 19	J	3	113	464	36.8
			<u>1140</u>	<u>4698</u>	

Motor Sailer (Blue)

✓ May 24	a	4	188	608	13.5
✓ June 8	b	4	128	459	15.0
✓ June 22	c	5	117	219	14.3
✓ June 23	d	5	210	542	27.0
✓ July 5	e	5 & 6	185	582	22.1
✓ July 13	f	6	124	328	15.4
✓ July 14	g	6	171	516	22.4
✓ July 15	h	7	158	402	18.4
✓ July 16	j	7	178	330	17.7
✓ July 17	k	7 & 8	92	613	19.1
✓ July 18	l	8	110	293	15.2
✓ Aug. 1	m	8	174	551	22.1
✓ Aug. 13	n	9	197	577	27.9
✓ Aug. 14	p	9	133	386	18.4
✓ Aug. 15	q	9	36	125	4.3
✓ Aug. 16	r	9 & 10	164	645	23.5
✓ Aug. 18	s	10	188	475	23.5
✓ Aug. 30	t	10	101	190	11.5
✓ Aug. 31	u	11	202	610	26.3
✓ Sept. 1	v	11	193	577	22.0
✓ Sept. 19	w	11 & 12	175	527	18.7
			<u>3224</u>	<u>9555</u>	

Gig (Red, Lower Case)

Sept. 19	a	13	99	182	9.2
----------	---	----	----	-----	-----

Launch # 4 (Green)

Sept. 19	a	14	113	325	12.3
----------	---	----	-----	-----	------

Area in square Statute Miles = 91

14760
219 8

LIST OF SIGNALS

to accompany

HYDROGRAPHIC SHEET H-6382, Field No. 2438

TRIANGULATION STATIONS

ASLIK	1937	GANIC	1937	BROKE	1937
BLOW	1938	CINDER	1937	NUDAK	1937
CONE	1937	TUM	1937	NANU	1937
PORTAGE	1938	UNA	1937	ILMALI	1938
IGNEOUS	1938	HANDE	1937	ROCKAWAY	1937
GROAN	1938	PICK	1937	MALINUK	1938
JAM	1938	KAW	1937	DUNE	1938
KIG	1937				

TOPOGRAPHIC SIGNALS

Topographic Sheet T-6642, Field No. U-38

Fag	Hat	Log	Kid	Rex
Raz	Bas	Sig	Zeb	Liz
Rod	Bud	Izy	Der	Die
Top	Lot	Zup	Gus	Pay
All	Crab	Goon	Man	Sob

Topographic Sheet T-6643, Field No. R-38

Sob	Sea	Wood	Tail	Sil
Ye	Mat	Dok ^c	Fin	Ear
Ala	Tes	Blok	Ex	Cat
Reg	Ding	Lem	Sid	Abe
Hun	Ivy	We	Roy	Big
Fee	Top	Loo	Lit	Run
Dew	Bos	Fig	Tan	Ire
Part	Wig	Sel	End	Had
Por	Pro	Eve	Tuk	Got
Van	Con	As	New	So
Wat	Door	War	Red	Rob
Row	Ti	Spec	In	Pin
Ink	Lid	Tab	Hart	Bulb
Crib	Tip	Jet	Rok	Rent
Bil	Rif	Sad		

LIST OF SIGNALS (cont.)

Topographic Sheet T-6645, Field No. T-38

Page	Irk	Loc	Nor	Way
Lamp	Tem	Yip	Pus	Cap
Gen	Boz	Hed	Odd	Aid
Val	Get	Gos	Wash	Sir
Min	Day	Fid	Yid	Rap
Bal	Pry	Bar	Art	But
Mit	Muk	Boy	Don	Hal
Ed	Sit	Dad	Ira	Cod
Sol	Sub	Pac		

HYDROGRAPHIC SIGNALS

Cut - Located by Sextant cuts from Ship.

Positions on which cuts were taken:

52 J
54 J
55 J
56 J

Field Records Section (Charts)

H6382

HYDROGRAPHIC SHEET NO.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	4676
Number of positions checked	43
Number of positions revised	5
Number of soundings recorded	14760
Number of soundings revised	103
Number of soundings erroneously spaced	13
Number of signals erroneously plotted or transferred	0

Date:

Verification by *H. R. Holmes, 2 1/2*
Frank B. Kelly 16 1/2

Time: *164 hrs.* ~~inserted~~
by H. R. Holmes

Review by *J. A. McCormick 11/17/39.*

Time: 8 hr.

Verifiers report for H 6382 (1938)

The records conform to the requirements of the General Instructions.

The topographic signals are from T6642, 345 (1938) one Hydro signal ^{at cut} was located by the hydro part.

neither H 6381 (1937-8) which joins on the south nor H 6383 (1938) on the west has as yet been verified now verified. 11/10/21.

Hydro sheet Field No 2337 which joins on the north has not as yet been read in the office.

a Rock 150 meters south of O 314, lat. $53^{\circ} 23.7$ long. $168^{\circ} 23.9$ shown on T6642 as a simple rock was changed on H 6382 to a rock awash base 1' @ MLLW, Accept hydro.

a Rock 150 meters N.E. of O ENO, lat. $53^{\circ} 15.75$ long. $168^{\circ} 23.55$ shown on T6643 as a rock awash was changed on H 6382 and is now as an inlet Accept topo. Changed back to awash at high HW.

Francis B. Kelly

HYDROGRAPHIC SURVEY NO. H-6382

Smooth Sheet Yes

Boat Sheet Four

Records; Sounding 14 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals In D.R.

Landmarks for Charts (Form 567) None

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) ---

Special Chart for Lighthouse Service None
(Circular Nov.30, 1933)

Hydrography: Total Days 22 ; Last Date September 19, 1938

Remarks _____

GEOGRAPHIC NAMES

Survey No.

Name on Survey											
	A	B	C	D	E	F	G	H	K		
											1
											2
											3
R -	Recommended names										4
	referred to USGB 7/21/39										5
											6
											7
											8
											9
											10
											11
											12
											13
submitted	feature of no great importance										14
<u>Izhiga Cave</u>	to USGB										15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

GEOGRAPHIC NAMES

Survey No. H-6382

Name on Survey	On Chart No. 8802	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A,	B,	C,	D	E	F	G	H	K
R <u>Steeple Point</u>		File No 530 680				OK			1
R Cinder <u>Cindr Point</u>		File No 530 680				OK			2
R Stepanof <u>Cindr Cove</u>		File No 530 680				OK			3
R <u>Hot Springs Cove</u>		File No 530 680				OK			4
<u>Umnak Island</u>	✓	File No 530 680				USGB decision			5
<u>Cape Kigunak</u>	✓	File No 530 680							6
<u>Cape Aslik</u>	✓	File No 530 680							7
R Cemetery Cove <u>Southwest Anchorage</u>		File No 530 680				OK			8
R <u>Broken Point</u>		File No 530 680				OK			9
R <u>Geyser Bight</u>		File No 530 685				OK			10
Inanudak <u>Inanudak Bay</u>	✓	File No 530 680							11
<u>Cape Ilmalianuk</u>	✓	File No 530 685							12
<u>Bering Sea</u>	✓	File No 530 685				USGB decision			13
Northeast Anchorage	✓	File No 530 680				OK			14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
✓ <i>HE</i>									26
7/21/39									27

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 15, 1939.

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Plane of reference approved in
14 volumes of sounding records for

HYDROGRAPHIC SHEET 6382

Locality Inanudak Bay and Vicinity, North side of Umnak Island,
Aleutian Islands.

Chief of Party: A. M. Sobieralski in 1938
Plane of reference is mean lower low water reading
3.7 ft. on tide staff at Dutch Harbor
12.5 ft. below B. M. 1
4.5 ft. on tide staff at Inanudak Bay
6.5 ft. below B.M. 1

Height of mean high water above plane of reference is 3.4 feet.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H 6382
~~PHOTOGRAPHIC INDEX~~ } ~~NO. 1~~

{ received May 8, 1939
 registered June 7, 1939
 verified
 reviewed
 approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25	✓	Hbv	Pages 2 to 5.
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ JBR

Section of Field Records.

REVIEW OF HYDROGRAPHIC SURVEY NO. 6382 (1938) FIELD NO. 2438.

Inanudak Bay and Vicinity, North Side of Umnak Island,
Aleutian Islands.

Surveyed in May-Sept., 1938, Scale 1:20,000.

Instructions dated Feb. 3, 1938 (SURVEYOR).

Hand Lead and Machine Soundings. 3 Point fixes on shore signals.
Fathometer Soundings.

Chief of Party - A. M. Sobieralski
Surveyed by - Officers of Ship SURVEYOR
Protracted by - D. E. Sturmer
Soundings plotted by - D. E. Sturmer
Verified and inked by - F. B. Kelly

1. Shoreline and Signals.

Shoreline and topographic signals are from T-6642, T-6643 and T-6645 of 1938. Hydrographic signal CUT (lat. 53° 25', long. 168°24') was located by cuts recorded in the sounding volumes.

2. Depth Curves.

Satisfactory.

3. Sounding Line Crossings.

Satisfactory.

4. Junctions with Contemporary Surveys.

Junctions with H-6381 (1938) on the southwest and H-6383 (1937-38) on the west are satisfactory. The survey on the north has not been received from the field.

5. Comparison with Prior Surveys.

This Bureau has made no previous surveys in this locality.

6. Comparison with Chart 8802. (New Print of Nov. 3, 1938)

The chart is on a very small scale and shows but four soundings within the area of the present survey. These and the few rock symbols shown bear only a general resemblance to the features on the present survey.

7. Condition of Survey.

Satisfactory.

8. Compliance with Instructions for the Project.

Development of the following shoal indications would have been desirable:

- a. 23 fathoms in lat. $53^{\circ}15.8'$, long. $168^{\circ}39.7'$.
- b. $7 \frac{3}{4}$ fathoms in lat. $53^{\circ}16.7'$, long. $168^{\circ}37.4'$.
- c. $5\frac{5}{6}$ fathoms in lat. $53^{\circ}16.8'$, long. $168^{\circ}21.0'$.
- d. 31 fathoms in lat. $53^{\circ}17.5'$, long. $168^{\circ}32.2'$.
- e. 29 fathoms in lat. $53^{\circ}18.1'$, long. $168^{\circ}32.5'$.

9. Additional Field Work Recommended.

Additional investigation of shoal indications listed in the preceding paragraph is not immediately essential. However, should a convenient opportunity occur, such investigation would be desirable, particularly in the case of item d.

10. Superseded Surveys.

None.

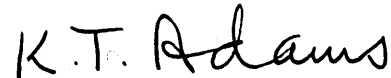
11. Reviewed by - J. A. McCormick, Nov. 17, 1939.

12. Inspected by - H. R. Edmonston.

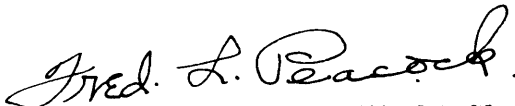
Examined and Approved:



T. B. Reed,
Chief, Section of Field Records.



Chief, Division of Charts.



Chief, Section of Field Work.



Chief, Division of H. & T.

Applied to chart 8802 F.M.A. Nov. 1940
" " " 8861 J.W. Jan 1942
" " " 9075' J.H.S. Mar 1942