4870a

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ Sheet No. F 1934 4870a

State California

LOCALITY

Santa Catalina Island,

Mills Landing to Isthmus Cove

1934

CHIEF OF PARTY

Robert W. Knox H. & G. E.

U.S. GOVERNMENT PRINTING OFFICE: 1934

4870a

applies to Chart 5101 - May 1936 R.M.J.

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

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

Field Letter P 1934

REGISTER NO. 48708

State California

General locality Santa Catalina Island, in the vicinity Isthmus Cove

Locality Mills Landing to Isthmus Cove

Scale 1 ; 10,000 Date of survey Dec. 1933 - May 1934, 19

Vessel launch and shore party, California

Chief of Party Robert W. Knox

Surveyed by P.M. Scott

Inked by P. M. S.

Heights in feet above M. H. W. to ~~[illegible]~~

~~[illegible]~~ Approximate contour ~~[illegible]~~ interval 50 feet

Instructions dated September, 13, 1933, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1928

application & Chart 5128 - April 1935 - N.B. Stamble

DESCRIPTIVE REPORT

to accompany

Sheet P 1934

Vicinity of Isthmus Cove, Catalina Harbor and Little Harbor

California

Robert W. Knox Chief of party

Scale 1 ; 10,000

INSTRUCTIONS:

The instructions for this project were dated September, 13, 1933

GENERAL DISCRIPTION:

From △ Pablo to △ Quarry the coast line is irregular and made up of rocky bluffs broken by coves and bights of considerable depth. The beaches in the bights and coves are gravel while in other places they are boulders. The back country is of high broken ridges with steep cactus covered slopes. The westerly slopes in canyons are covered with brush. Isthmus Cove is backed by a low lying valley utilized as a resort covered by tents and bunglows. In the vicinity of ⊙ Ab, ⊙ Dab, and ⊙ Fish there are white banks approximately fifty feet high. Between ⊙ Dir and △ Quarry is located a rosk quarry, forming a high rocky bluff.

The coast in the vicinity of Catalina Harbor and southeasterly beyond Little Harbor is of high rocky bluffs, in some instances sheer. The beach in this vicinity is composed of large boulders. The coves have gravel beaches. There are a few off lying rocks awash that are within the seaward line of kelp.

Inshore are high barren brown hills. Under △ White Bluff there are white cliffs. △ Fish Hook is on a point covered with very large boulders broken from the face of a high sheer cliff. Opposite ⊙ Dun there are high grey precipices that are very proniment.

LANDMARKS:

Approaching coast from the north we have two prominent landmarks Bird Rock, lying approximately one mile from shore, is a rock pinnacle approximately sixty feet high and covered with bird dung. White Rock is an island a half mile off shore, thirty seven feet high and covered with bird dung. There is also a water tank at an elevation of 350' situated southeast of △ Pablo on the side of a hill. Approching the coast from the south the white cliffs, on which △ White Bluff is located is a prominent land mark.

CONTROL:

The control of this sheet is from the original triangulation scheme of 1875 and 1876, most of these stations were recovered by the party. Well 2, Prospect 2 and Cherry 2 were reastablished. Owing to practically all of the stations being in the interior, Slip, Fish Hook, Tower, Trans, Isthmus, Quarry, Channel and G.L.O. were established by the party to facilitate in running traverse of shore line.

CLOSING ERROR OF TRAVERSE:

	Traverse dist. (meters)	Closure (meters)
△ White Rock to △ Cherry 2 via. ⊙ Pot	3080	4
△ Cherry 2 to △ Pablo	2435	3
△ White Rock to fix ⊙ Ole via ⊙ Pot	1100	0
Fix ⊙ Ole to △ Quarry	1870	5
△ Cone to ⊙ Ten	2120	0
△ Harbor to △ Fish Hook	4000	2
Fix above ⊙ Put to △ Fish Hook	1740	0
Fix above ⊙ Put to △ Grape	2180	3
△ Grape to fix on point between ⊙ Jojo & ⊙ Ren	1010	0
△ Slip " " " " " ⊙ " " ⊙ "	936	0

SURVEY METHODS:

Plane table traverses were run between triangulation stations and fixes. In all instances there were stations visable for orentation. Roads were run from plane table traverses from fix to fix and discrepencies were adjusted in the field. Elevations were carried and checked on elevations established on triangulation stations. Contours were located by rod readings for determining elevations and the contours interpolated. Elevations were established from three point fixes taken from established elevations on triangulation stations. The contours on this sheet should be classed as approximate contours. The inshore limits of the Kelp was sketched in the field. The out lying rocks were located by cuts and rod readings from plane table set ups.

UNUSUAL SURVEY METHODS:

Due to topography of shore line it was impossible to run plane table traverse between ⊙ Squ and ⊙ Blk this portion of the shore line was run in by sextant cuts from the launch. Owing to the change in scale between Sheet Field No. P and Sheet Field No. Q traverse was run on Sheet Field No. P from △ Cone to ⊙ Ten, these points were transferred to Sheet Field No. Q by DM's and DP's and traverse of that sheet closed in on ⊙ Ten. Shore line of Catalina Harbor is shown on Sheet Field No. P' on a scale of 1:5,000.

NAMES:

Howland Cove, Cherry ~~Valley~~ Cove and Fourth Of July Cove are local names and are in pencil on the sheet. For further information on names see descriptive report of hyd. sheet SC12 H-5556

LIST OF PLANE TABLE POSITIONS:

Object	Latitude	DM	Longitude	DP	Remarks
Water tank	33°27'	91 982	118°31'	383	Center line Top of Tank
Water tanks	33°26'	918	118°28'	63 354	Center line Between two Adjacent tanks

COMPARISON WITH PREVIOUS SURVEYS:

The general trend of the coast line of the present survey compares very favorably with that of the 1853 survey. Some of the bights of the previous survey are not as deep as that of the present survey. For example, the bight 1040 meters Southwest of △ Cherry 2 is at present 40 meters deeper than shown previously.

At a point 700 meters Southwest of △ Cherry 2 high water now shown 40 meters further west than it was chartered on the previous survey. In Fisherman Harbor high water line was shown 30 meters further inland than it was found to be on the present sheet. In the cove between ⊙ Asp and ⊙ Gor the high water line of the present survey is 70 meters further inland than previous survey indicates. The point at ⊙ Wash isnow 60 meters further west than previous locations shows it. These differences are difficult to account for as there is very little erosion on this part of the island due to the character of the geology.

STATISTICS:

Statute miles of shore line	15.10
Statute miles of roads	19.93
Statute square miles of area surveyed	6.70

INKING:

This sheet was inked in the office by P.M.Scott civilian observer under the supervision of John C. Mathisson Jr. H. & G. Engr., C. & G. Survey.

P.M. Scott

P.M.Scott, Observer

Respectfully fowarded;

Robert W. Knox

Robert W.Knox,
H. & G. E.,Chief of Party.

VERIFICATION REPORT

I have reviewed the sheet covered by this report and have supervised the field and office work on said sheet insofar as it was possible without interference with the progress of the field work.

This sheet is hereby approved.

Robert W. Knox

Robert W. Knox,
H. & G. E., Chief of Party.

Form 567
Rev. Jan. 1933

DIVISION OF CHARTS, FILE NO. 48708

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Long Beach, California

November 13, 1934, 193

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

Robert W. Knox
Robert W. Knox — *Chief of Party.*

DESCRIPTION	POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE					
	°	′	D.M. METERS	°	′	D.P. METERS			
Tanks ✓	33	26	922	118	28	376			5128 ✓
	33	26	915	118	28	351	USStd	topo	5128 ✓
Transmission line	see topographic sheet "P"								5128 omit from chart
Houses	33	23	175	118	28	531			
	33	23	207	118	28	557	USStd	topo	
Tank* ✓	33	27	991	118	31	383	USStd	topo	5128 ✓

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive indentification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U.S. GOVERNMENT PRINTING OFFICE: 1934 25379

To: Mr. Bacon
From: C.F. M.

Survey No. T 4870a
H 5556

GEOGRAPHIC NAMES
CALIFORNIA

Date. Dec. 17, 1934

Chart No. 5102

Names underlined in red approved Dec 17, 1934 Diagram No. 5102-2
Harlow Bacon

*, Approved by the Division of Geographic Names, Department of Interior.

¢, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior. R

For authorities see Desc. Report H 5556, page 5

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
✓	Outer Santa Barbara Passage ✓	Same CH 5128			
	~~Passage~~	Same			
✓	Mills Landing ✓	"			
✓	Little Harbor ✓	"			
✓	Santa Catalina Island ✓	" 5128			
✓	Catalina Harbor ✓	" 5128			
✓	Isthmus Cove ✓	5128			
✓	Cherry ~~Valley~~ Cove ✓	---------- 5128	Same	Same	
	Fisherman ~~Harbor~~ Cove Local Usage	---------- 5128	Same ✓		
✓	Fourth of July Cove ✓	---------- 5128	Same	Same	
✓	Howland ~~Cove~~ Landing Local Usage	----------	"	"	
✓	San Pedro Channel ✓	Same 5128			
✓	White Rock	" 5128 R	Bird Rock	Bird Rock–Recommended	
	Bird Rock	" 5128 R	Ship Rock	Ship Rock–Recommended	
	Cottonwood Canyon		Same		
	Empire Landing ✓	does not belong on this sheet see C.L. 31, 1936 GHE			
	Blue Cavern Pt. ✓				
	Lion Head ✓				
	Catalina Head ✓				

(M 100)

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4870a (1934)

Santa Catalina I., Mills Landing to Isthmus Cove, California
Surveyed December 1933 to May 1934
Instructions dated: September 13, 1933 (Knox)

Plane Table Survey - Cloth Mounted.

Chief of Party - R. W. Knox.
Surveyed by - P. M. Scott.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual with the following exceptions:

a. Scaled $\frac{1}{2}$ meter distances for distortion checking were not laid off.

b. Old triangulation stations are shown with a triangle enclosed in a circle. The manual calls for triangles alone.

2. Compliance with Instructions for the Project.

The survey complies with instructions in every respect except that the survey was to be on the same scale as the previous survey which was 1:20,000. However the departure was to a larger scale which was probably necessary for proper hydrographic development.

3. Junctions with Contemporary Surveys.

Satisfactory junctions were made with T-4869 (1934), T-4870b (1934), and T-4884 (1934).

4. Comparison with Prior Surveys.

a. T-1299b (1853) and T-1299a (1873).

These surveys are actually one; the later being a copy of the 1853 survey. The agreement between these surveys and the present survey is good in general characteristics. Some of the rocks are now shown in slightly different locations. It does not appear that any special effort was made to obtain a satisfactory junction of the new contours with the old. However, the new contours do not vary greatly from their former determination.

b. T-1603 (1877).

This survey was found to agree with the present survey except that a few rocks were not verified. A sunken rock in lat. 33°24'.0, long. 118°29'.1, and 2 rocks awash in lat. 33°23'.5, long. 118°28'.85 have been carried forward to the new survey because they are not considered disproved. A sunken rock in lat. 33°23'.9, long. 118°29'.1 is left to be disposed of in the review of the contemporary hydrographic survey.

Disposed of in Review H-5556 (1934)

c. T-1606 (1878).

This survey contains about 1½ miles of shoreline which is shown on the present survey. Both the shoreline and the offlying rocks are in good agreement.

5. Field Drafting.

The field inking of the survey is satisfactory.

6. Additional Field Work Recommended.

The survey is complete and no additional field work is requred.

7. Superseding Old Surveys.

Insofar as the topography actually included in the present survey is concerned, it supersedes the following surveys for charting purposes:

T-1299b	(1853)	
T-1299a	(1873)	
T-1603	(1877)	in part.
T-1606	(1878)	in part.

8. Reviewed by A. F. Jankowski, December 1934.

Examined and approved:

C. K. Green, C. K. Green
Chief, Section of Field Records.

L. O. Colbert
Chief, Div. of Charts.

J. S. Bodun
Chief, Section of Field Work.

G. Rude
Chief, Div. of H. & T.

4870b

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

4870b

Topographic / *Hydrographic* } *Sheet No.* P¹ 1934

State California

LOCALITY

Santa Catalina Island

Catalina Harbor

1934

CHIEF OF PARTY

Robert W Knox., H. & G. E.

U.S. GOVERNMENT PRINTING OFFICE: 1934

4870b

applied to Chart 5101 - May 1936 - L.M.Z

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4870h

TOPOGRAPHIC TITLE SHEET

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

Field No. Pt 1934

REGISTER NO. 4870h

State California

General locality Santa Catalina Island

Locality Catalina Harbor

Scale 1 : 5,000 Date of survey April, 1934

Vessel Launch and shore party, California.

Chief of party Robert W. Knox

Surveyed by P. M. Scott

Inked by P. M. Scott

Heights in feet above M. H. W. to ground ~~tops of trees~~

Contour, Approximate contour, Form line interval ____ feet

Instructions dated September 13, 1933, 19____

Remarks:

Applied to Ch 5128 - Apl 1934 - H.D. Sawtelle

DISCRIPTIVE REPORT

to accompany

Sheet P'1934

Catalina Harbor of Santa Catalina Island

California

Robert W Knox Chief of Party

Scale 1: 5,000

INSTRUCTIONS:

The instructions for this project were dated September, 13, 1933.

DESCRIPTION:

The Coast line on the west at the entrance of the harbor is irregular,with steep rocky bluffs,beach is covered with boulders. On the east side of harbor as far north as △ Harbor there are high rocky bluffs backed by high broken ridges,the shore is covered with boulders. The further into the harbor the flatter becomes the coast line at the end of the harbor there is a low isthmus extending to Isthmus Cove that is utalized as a resort The beaches are of gravel,except at the end which is a sand beach.

LANDMARKS:

Under △ Cone is a sheer rugged bluff coming to a decided point. Pin Rock is a low lying pinnacle rock,covered with bird dung, approximately 150 meters off shore.

CONTROL:

The control of this sheet is from the original triangulation scheme of 1875, most of the stations were recovered by the party. △ Prospect 2 was re-established. △ Isthmus was established to aid in running plane table traverse.

CLOSING ERROR OF TRAVERSE:

Traverse was run from △ Harbor to ⊙ NC, From △ Harbor to ⊙ Sini and to ⊙ Tem via. ⊙ Ach. Then from △ Santa Catalina Island South Base via ⊙ Barl to ⊙ Tem checking in flat.

SURVEY METHODS:

Plane table traverses were run along shore line from set ups at △ Harbor and △ Santa Catalina Island South Base. Off lying rocks were located by rod readings from plane table set ups. Inshore limits of kelp were sketched in the field.

COMPARISON WITH PREVIOUS SURVEYS:

The general trend of the present surveyof coast line compares very favorbly with survey of 1853. From ⊙ Squ to ⊙ Tal the coast line of the present survey is 15 meters further east than the chartered location of the previous survey. The bight between ⊙ Set and ⊙ Fur is 15 meters further east on this sheet than shown by the previous survey. ⊙ Ang was found to be a point 20 meters further seaward than shown by prior survey.

STATICTICS:

Statute miles of shore line 3.61

INKING:

This sheet was inked in the office by P. M. Scott civilian observer under the supervision of John C. Mathisson, Jr., H. & G. Engr., C. & G. Survey.

P. M. Scott
Observer

Respectfully fowarded,

Robert W. Knox

Robert W. Knox, Chief of Party

VERIFICATION REPORT

I have reviewed the sheet covered by this report and have supervised the field and office work on said sheet insofar as it was possible without interference with the progress of the field work.

This sheet is hereby approved.

Robert W. Knox

Robert W. Knox,
H. & G. E., Chief of Party.

To: Mr. Bacon
From C.F.M.

Survey No. T4870b

GEOGRAPHIC NAMES
CALIFORNIA

Chart No. 5102 + 5128

Date. Dec. 15,1934

Names underlined in red approved Dec. 17, 1934 Diagram No. 5102-2
Harlow Bacon

*, Approved by the Division of Geographic Names, Department of Interior.

¢, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Santa Catalina Island ✓	Same			
	Catalina Harbor ✓	"			
	Pin Rock ✓	"			
	Ballast Pt. ✓	"			

(M 100)

88: Lt. Green

POST-OFFICE ADDRESS: Box 761, Santa Barbara, California

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

1935 JAN-18-PM 12:56

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

January 12, 1934.

To: The Director,
Coast and Geodetic Survey,
Washington, D. C.

From: Lieut. Robert W. Knox,
Coast and Geodetic Survey,

Subject: Control signals, Catalina Harbor, California.

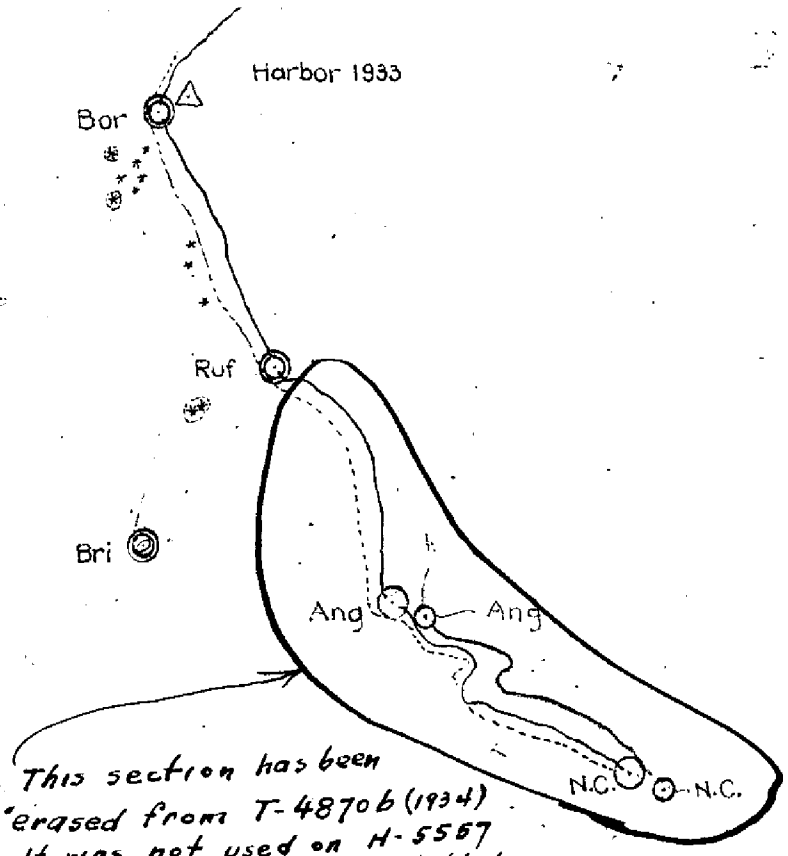
Reference: Director's letter of December 29, 1934, 80-DRM

There is enclosed herewith a letter from Mr. P. M. Scott, the civilian topographer who surveyed that portion of Santa Catalina Island including Catalina Harbor, explaining the discrepancy in the position of two signals common to sheets of different scales.

It is recollected that the two signals in question were used little, if any, in the hydrography of the 1:5000 sheet and as a consequence the hydrogaphic party had no check on the location of the signals. In view of this together with the opinion of the topographer, it is believed the latter's recommendation should be accepted.

Robert W. Knox

Robert W. Knox,
Chief of Party.



This section has been erased from T-4870b (1934) It was not used on H-5567 Scale 1:5000 A.F.J. 4/5/35

Tracing of T4870b (Scale 1:5000)

Signals in blue transferred from T4870a. (Scale 1:10000)

Note discrepancy in locations of stations "Ang" and "N.C."

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Long Beach. Calif.
January. 9, 1935

Lieut. R.W. Knox
Coast & Geodetic Survey.
P.O. Box #761
Santa Barbara, Calif.

Dear Mr. Knox, —

In reference to your letter of the seventh instant, regarding discrepencies, of the location of Control signals, Ang. and N.C.

The signals as shown on T 4870a (scale 1:10,000) are shown Correctley. The traverse on this sheet was run Continously, under favorable conditions. and an excellent Closure was made to the east.

Regarding the location of above signals as shown on T 4870b (Scale 1:5,000) this traverse was only extended as far as O N.C. and. Owing to condition of the sea's at this time no closure was made. also due to the same cause, some very short set up were made. and the set up governing the signals in question (Ang. & N.C.), was in. error. ie. the wrong point was used, throwing these signals out.

Sincerely

J.M. Scott

Applied to T-4870 b
A.F.J. 4/5/35

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. 4870b (1934).

Catalina Harbor, Santa Catalina Island, California.
Surveyed April 1934
Instructions dated: September 13, 1933 (KNOX)

Plane Table Survey - Cloth Mounted.

Chief of Party - R. W. Knox.
Surveyed by - P. M. Scott.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual with the following exceptions:

a. Scaled one-half meter distances were not laid off for distortion checking.

b. Recovered triangulation stations are shown with a triangle enclosed in a circle. The accepted manner is to show all triangulation stations by a triangle.

c. The section of shoreline from Signal RUF southeastward to Signal N.C. was found to disagree with the determination on T-4870a (1934). Information from the Field Party (see D.R.) has been received and this section has been deleted from the survey.

2. Compliance with Instructions for the Project.

The survey complies with instructions for the project in every respect.

3. Junctions with Contemporary Surveys.

Satisfactory junctions were made with T-4870a (1934) at signal ACH , lat. 33°25'.4, long. 118°30'.7 and at signal RUF lat. 33°25'.6, long. 118°30'.4.

4. Comparison with Prior Surveys.

a. T-1299b (1853) and T-1299a (1873).

These surveys are in good agreement with the present survey. There are some slight differendes in location and character of rocks but the new survey is considered correct.

5. Field Drafting.

The field inking of the survey is good.

6. Additional Field Work Recommended.

The survey is complete and no additional field work is required.

7. Superseding Old Surveys.

Insofar as the topography actually included in the present survey is concerned, it supersedes the following surveys for charting purposes:

T-1299b (1853) in part.
T-1299a (1873) in part.

8. Reviewed by A. F. Jankowski, April 1934.

Examined and Approved:

C. K. Green, C. K. Green
Chief, Section of Field Records.

L. O. Colbert
Chief, Div. of Charts.

F. S. Borden
Chief, Section of Field Work.

G. Rude
Chief, Div. of H. & T.