8853 8854
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Diag'd. on Diag. Ch. No. 6157 (Insert)

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric Air Photographic Shoreline

Field No. Ph-2 (45) *Office No.* T-8853, T-8854 T-8855& T-8856

LOCALITY

State Washington

General locality F.D.Roosevelt Lake

Locality From Hellgate Canyon to Sixmile Cr.

1946-'47

CHIEF OF PARTY

J.T.Jarman

LIBRARY & ARCHIVES

DATE November 10, 1949

8-1870-1 (1)

Form T-1

DATA RECORD

T-8853

Quadrangle (II): WILBUR, WASHINGTON (U.S.E.) 30 minute 1:125,000 **Project No. (II):** Ph-2(45)

Field Office: Coulee Dam, Wash. **Chief of Party:** J.T.Jarman

Compilation Office: Portland, Ore. **Chief of Party:** R.A.Earle

Instructions dated (II III): 4-3-47 **Copy filed in** ~~Descriptive Report No. T- (VI)~~ Division of Photogrammetry Office Files

Completed survey received in office: 11 Mar. 1948

Reported to Nautical Chart Section: 18 Mar. 1948

Reviewed: 29 Dec. 1948 **Applied to chart No.** **Date:**

Redrafting Completed: ——

Registered: 19 Oct. 1949 **Published:**

Compilation Scale: 1:10,000 **Published Scale:**

Scale Factor (III): None

Geographic Datum (III): N.A. 1927 **Datum Plane (III):** Mean Sea Level (USBR)? Normal Pool Elevation, 1290' above (USBR): 1288.5± USCR&GS, 1929

Reference Station (III): SHERMAN, 1936 r 1947

Lat.: 47° 52' 01.510" (46.6m) **Long.:** 118° 34' 26.406" (548.8m) Adjusted X Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 1,685,377.03 Y = 220,007.43

Military Grid Zone (VI)

M-2467-12(3)

Copy

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
9 lens				
17378 to 17380 Inc.	8/21/46	12:02 PST	1:10000	1259.65 above M.S.L.
17431 to 17434 Inc.	8/22/46	10:52 PST	1:10000	1289.65 above M.S.L.
17456 to 17458 Inc.	8/22/46	11:28 PST	1:10000	1289.65 above M.S.L.
U.S.Army Single lens				
16-2 & 20-2		Unknown	1:20000	Unknown
78-2 & 80-2		Unknown	1:20000	Unknown
13-3 to 16-3		Unknown	1:20000	Unknown

Tide from (III): None

Mean Range: None **Spring Range:** None

Camera: (Kind or source) U.S.C. & G.S., 9 lens, focal length 8.25 inches
U.S.Army, Single lens, focal length 8.25 inches

Field Inspection by: J.T.Jarman **date:** Summer 1947
Interior - John Winniford 6-13-47
Shoreline - John Lajoye 7-14-47
Field Edit by: None Geo. Names - John Winniford **date:** 6-13-47

Date of Mean High-Water Line Location (III): 8-22-46

Projection and Grids ruled by (III) Washington Office **date:** July 1947

" " " **checked by:** Washington Office **date:** July 1947

Control plotted by: Helen Letson **date:** Sept. 11, 1947

Control checked by: J.E.Deal **date:** Sept. 18, 1947

Radial Plot by: James L. Harris & J.E.Deal **date:** Sept. 30, 1947

Detailed by: M. Elrod **date:** Nov. 12, 1947

Reviewed in compilation office by: Ree H. Barron **date:** Nov. 26, 1947

Elevations on Field Edit Sheet checked by: None **date:**

STATISTICS (III)

Land Area (Sq. Statute Miles): 31.0 (Complete detail along shoreline) (Skeleton detail interior)

Shoreline (More than 200 meters to opposite shore): 16 statute miles

Shoreline (Less than 200 meters to opposite shore): 5 statute miles

Number of Recoverable Topographic Stations established: 3

Number of Temporary Hydrographic Stations located by radial plot: 67

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

Form T-1

DATA RECORD

T-8854

Quadrangle (II): Davenport, Wash. (USE) 30 minute 1:125000 Project No. (II): Ph-2(45)

Field Office: Coulee Dam, Wash. Chief of Party: J.T.Jarman

Compilation Office: Portland, Ore. Chief of Party: R. A. Earle

Instructions dated (II III): 4/3/47 Copy filed in ~~Descriptive Report No. T-~~ ~~(VI)~~ Division of Photogrammetry Office Files

Completed survey received in office: 11 Mar. 1948

Reported to Nautical Chart Section: 18 Mar. 1948

Reviewed: 4 Jan. 1949 Applied to chart No. Date:

Redrafting Completed: ——

Registered: 19 Oct. 1949 Published:

Compilation Scale: 1:10000 Published Scale:

Scale Factor (III): None

Geographic Datum (III): N.A. 1927 Datum Plane (III): Mean Sea Level (USBR) = Normal Pool Elevation, 1290' above (1937) 1288.5± USCEGS, 1929

Reference Station (III): WELSH (USBR) 1934 r 1947

Lat.: 47° 49' 52.339" (1616.5m) Long.: 118° 26' 26.437" (549.8m) Adjusted x Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 2,587,607.55 Y = 312,332.18

Military Grid Zone (VI)

M-2467-12(3)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water level of lake ~~Stage of Tide~~
Nine Lens				
17381 & 17382	8-21-46	12:03 P.S.T.	1:10000	1289.65 above M.S.L.
17460 to 17461	8-22-46	11:29 P.S.T.	1:10000	1289.65 above M.S.L.
17479 & 17480	8-22-46	11:55 P.S.T.	1:10000	1289.65 above M.S.L.
U.S.Army				
Single Lens				
11-3 & 12-3	1944	Unknown	1:20,000	Unknown
30-4 & 33-4	1944	Unknown	1:20,000	Unknown

Tide from (III): None

Mean Range: None **Spring Range:** None

Camera: (Kind or source) U.S.C.& G.S., 9 lens, focal length 8.25 inches
U.S.Army, Single lens, focal length 8.25 inches

Field Inspection by: J.T.Jarman **date:** Summer 1947
Interior, John Winniford **date:** 6-16-47
Shoreline, John Lajoye **date:** 7-28-47
Field Edit by:(none) Geo.Names, John Winniford **date:** 6-16-47

Date of Mean High-Water Line Location (III): 8-22-46

Projection and Grids ruled by (III) Washington Office **date:** July 1947

" " " **checked by:** " " **date:** July 1947

Control plotted by: Helen Letson **date:** Sept. 10, 1947

Control checked by: J.E.Deal **date:** Sept. 15,1947

Radial Plot by: J.L.Harris & J.E.Deal **date:** Oct. 14, 1947

Detailed by: Helen Letson **date:** Dec. 8, 1947

Reviewed in compilation office by: R.H.Barron **date:** Dec. 16, 1947

Elevations on Field Edit Sheet checked by: None **date:**

STATISTICS (III)

Land Area (Sq. Statute Miles): 37.5 sq. mi. {complete detail along shoreline / skeleton detail interior}

Shoreline (More than 200 meters to opposite shore): 20.2 Statute miles

Shoreline (Less than 200 meters to opposite shore): 1 Statute mile

Number of Recoverable Topographic Stations established: 4

Number of Temporary Hydrographic Stations located by radial plot: 44

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

Form T-1

DATA RECORD

T-8855

Quadrangle (II): Davenport, Wash. (U.S.E.) 30 minute 1:125000 **Project No. (II):** Ph-2(45)

Field Office: Coulee Dam, Wash. **Chief of Party:** J. T. Jarman

Compilation Office: Portland, Ore. **Chief of Party:** R. A. Earle

Instructions dated (II III): 4/3/47 **Copy filed in** ~~Descriptive Report No. T-~~ ~~(VI)~~ Division of Photogrammetry Office Files

Completed survey received in office: 11 Mar. 1948

Reported to Nautical Chart Section: 18 Mar. 1948

Reviewed: 6 Jan. 1949 . **Applied to chart No.** **Date:**

Redrafting Completed: ——

Registered: 19 Oct. 1949 **Published:**

Compilation Scale: 1:10000 **Published Scale:**

Scale Factor (III): None

Geographic Datum (III): N.A. 1927 **Datum Plane (III):** Mean Sea Level (USBR 1937) = Normal Pool Elevation, 1290' above 1288.5 USCEGS, 1929

Reference Station (III): EMERSON (USBR) 1934 r 1947

Lat.: 47° 52' 13.301" (410.8m) **Long.:** 118° 20' 22.876" (475.4m) Adjusted x Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 2,611,938.04 Y = 327,395.01

Military Grid Zone (VI)

M-2467-12(3)

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PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water level of lake. ~~Stage of Tide~~
9 lens				
17424 to 17427	8/22/46	10:46 P.S.T.	1:10000	1289.65 above M.S.L.
17463 to 17466	8/22/46	11:33 P.S.T.	1:10000	1289.65 above M.S.L.
17475 to 17478	8/22/46	11:53 P.S.T.	1:10000	1289.65 above M.S.L.
U. S. Army				
Single Lens				
7-3 & 8-3	1944	Unknown	1:~~20000~~	~~Unknown~~
34-4 to 37-4	1944	Unknown	1:20000	Unknown
4-4 & 50-4	1944	Unknown	1:20000	Unknown
75-4 to 78-4	1944	Unknown	1:20000	Unknown

Tide from (III): None

Mean Range: None **Spring Range:** None

Camera: (Kind or source) U.S.C.& G.S., 9 lens, focal length 8.25 inches
U. S. Army, Single lens, focal length 8.25 inches

Field Inspection by: J. T. Jarman **date:** Summer 1947
Interior, John Winniford date: 6-18-47
Shoreline, John Lajoye date: 8-7-47
Field Edit by: (none) Geo. Names, John Winniford **date:** 6-18-47

Date of Mean High-Water Line Location (III): 8-22-46

Projection and Grids ruled by (III) Washington Office **date:** July 1947

" " " **checked by:** Washington Office **date:** July 1947

Control plotted by: Helen Letson **date:** Sept. 9, 1947

Control checked by: J. E. Deal **date:** Sept, 10, 1947

Radial Plot by: J.L.Harris & J.E.Deal **date:** Oct. 14, 1947

Detailed by: Roy A. Davidson **date:** Nov. 17, 1947

Reviewed in compilation office by: Ree H. Barron **date:** Dec. 8, 1947

Elevations on Field Edit Sheet checked by: none **date:**

STATISTICS (III)

Land Area (Sq. Statute Miles): 31.2 (Complete detail along shoreline) (Skeleton detail interior)

Shoreline (More than 200 meters to opposite shore): 18.5

Shoreline (Less than 200 meters to opposite shore): 1.5

Number of Recoverable Topographic Stations established: 2

Number of Temporary Hydrographic Stations located by radial plot:44

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

Form T-1

DATA RECORD

T-8856

Quadrangle (II): Davenport, (U.S.E.) 30 minute 1:125000 **Project No. (II):** Ph-2(45)

Field Office: Coulee Dam, Washington **Chief of Party:** J. T. Jarman

Compilation Office: Portland, Ore. **Chief of Party:** R. A. Earle

Instructions dated (II III): 4/3/47 **Copy filed in** ~~Descriptive Report No. T-~~ Division of Photogrammetry Office Files ~~(VI)~~

Completed survey received in office: 11 Mar. 1948

Reported to Nautical Chart Section: 18 Mar. 1948

Reviewed: 13 Jan. 1949 **Applied to chart No.** **Date:**

Redrafting Completed: ———

Registered: 19 Oct. 1949 **Published:**

Compilation Scale: 1:10000 **Published Scale:**

Scale Factor (III): None

Geographic Datum (III): N.A. 1927 **Datum Plane (III):** Normal Pool Elevation 1290' above Mean Sea Level (USBR 1937) = 1288.5 USCEGS 1929

Reference Station (III): LANTZY (USBR) 1935 r 1947

Lat.: 47° 54' 27.874" (860.9m) **Long.:** 118° 19' 57.308" (1190.1m) **Adjusted** x. **Unadjusted**

State Plane Coordinates (VI): Washington, North Zone

X = 2,613,237.29 Y = 341,080.01

Military Grid Zone (VI)

M-2467-12 (3)

copy ck 9/46

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water level of lake. ~~Stage of Tide~~
17383 to 17385 Inc.	8/21/46	12:06 P.S.T.	1:10000	1289.65 above M.S.L.
17493	8/22/46	12:22 P.S.T.	1:10000	1289.65 above M.S.L.
17501 to 17504 Inc.	8/22/46	12:56 P.S.T.	1:10000	1289.65 above M.S.L.
17610 to 17613 Inc.	8/27/46	9:03 P.S.T.	1:10000	1289.61 above M.S.L.
U.S. Army Single lens				
92-1 to 95-1 Inc.	1944	Unknown	1:20000	Unknown
4-2 to 10-2 Inc.	1944	Unknown	1:20000	Unknown
87-2 to 92-2 Inc.	1944	Unknown	1:20000	Unknown
5-3 & 6-3 Inc.	1944	Unknown	1:20000	Unknown

Tide from (III): None

Mean Range: None **Spring Range:** None

Camera: (Kind or source) U.S.C.& G.S. 9 lens, focal length 8.25 inches
U.S.Army, single lens, focal length 8.25 inches

Field Inspection by: J. T. Jarman **date:** Summer 1947
Interior: John Winniford **date:** 6-20-47
Shoreline: John Lajoye **date:** 8-18-47
Field Edit by: (none) Geo. Names: John Winniford **date:** 6-20-47

Date of Mean High-Water Line Location (III): 8-22-46

Projection and Grids ruled by (III) Washington Office **date:** July 1947

" " " **checked by:** " " **date:** July 1947

Control plotted by: Helen Letson **date:** Sept. 10, 1947

Control checked by: J.E.Deal **date:** Sept. 11, 1947

Radial Plot by: J.L.Harris & J.E.Deal **date:** Oct. 14, 1947

Detailed by: Carita Wiebe **date:** Dec. 28, 1947

Reviewed in compilation office by: Ree H. Barron **date:** Jan. 13, 1948

Elevations on Field Edit Sheet checked by: None **date:**

STATISTICS (III)

Land Area (Sq. Statute Miles): 10 (Complete detail along shoreline) (Skeleton detail over portion of) (interior area)

Shoreline (More than 200 meters to opposite shore): 15.0

Shoreline (Less than 200 meters to opposite shore): None

Number of Recoverable Topographic Stations established: 2

Number of Temporary Hydrographic Stations located by radial plot: 42

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by, (II) Field Party, (III) Compilation Party, or, (VI) the Washington Office.

When entering names of personnel on this record give the surname and initials (not initials only).

Remarks:

MAP T- 8853 PROJECT NO. Ph2(45) SCALE OF MAP 1:10000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
WHITESTONE	G 6760	N.A.	47° 53' 59.903"	1850.2 (3.0)			Used in radial
1934 r 1947	USBR 1039	1927	118° 33' 12.822"	266.3 (979.9)			plot
SHERMAN	G 6761	"	47° 52' 01.510"	46.6 (1806.5)			"
1936 r 1947	USC&GS 1087		118° 34' 26.406"	548.8 (698.2)			
HELL GATE	G 6760	"	47° 56' 27.668"	854.6 (998.6)			"
1934 r 1947	USBR 1038		118° 35' 27.199"	564.5 (680.7)			
SIMONS	G 6760	"	47° 51' 46.964"	1450.5 (402.6)			"
1934 r 1947	USBR 1039		118° 30' 33.727"	701.0 (546.1)			
JIM	G 6760	"	47° 56' 25.685"	793.3 (1059.9)			"
1934 r 1947	USBR 1039		118° 30' 26.001"	539.6 (705.6)			
CP #49	Field	"	47° 55' 19.992"	617.5 (1235.7)			"
(UR1664+98.69) USBR 1934 r 1947	Comp.		118° 35' 56.241"	1167.6 (78.0)			
CP #48	"	"	47° 55' 59.392"	1834.4 (18.8)			"
(UR1471+41.68) 1934 r 1947			118° 32' 23.557"	489.1 (756.7)			
CP #54	"	"	47° 52' 45.896"	1417.5 (435.6)			"
(UL1716+51.78) 1934 r. 1947			118° 30' 28.338"	588.8 (657.9)			
CP #57	"	"	47° 54' 58.835"	1817.1 (36.0)			"
(UR1960+10.40) 1934 r. 1947			118° 32' 56.432"	1171.7 (74.1)			
CP #61	"	"	47° 52' 30.417"	939.4 (913.7)			Not used in
(UR2120+83.36) 1934 r. 1947			118° 32' 25.945"	559.9 (686.9)			radial plot
CP #51	"	"	47° 55' 29.606"	914.4 (938.7)			Used in
(UR1701+58.64) 1934 r 1947			118° 35' 09.653"	200.4 (1045.2)			radial plot
CP #53	"	"	47° 55' 33.004"	1019.4 (833.8)			"
(UR1789+20.22) 1934 r 1947			118° 34' 42.113"	874.3 (361.3)			

1 FT. = .3048006 METER

COMPUTED BY: J.L.Harris DATE July 1947 CHECKED BY: C. Wiebe&F.H.E. August 1947 DATE July 1947

M-2388-12

MAP T- 8853 PROJECT NO. Ph2(45) SCALE OF MAP 1:10:000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
CP #52 (UL1639+28.22) 1934 c. 1947	Field Comp,	N. A. 1927	47° 53' 24.181"	746.8	(1106.3)				Not used in	
			118° 32' 00.312"	06.5	(1240.0)				radial plot	
FORK PINE 1934 c. 1947	G 6760 USBR 1067	"	47° 53' 29.649"	915.7	(937.4)				Used in radial	
			118° 31' 58.999"	1225.6	(20.8)				plot	
WHITE ROCK 1934 c. 1947	G 6760 USBR 1067	"	47° 53' 45.000"	1389.9	(463.3)				Not used in	
			118° 32' 37.327"	775.4	(471.0)				radial plot	
CP #44 (UL1356+40.65)	Field Comp.	"	47° 56' 10.638"	328.5	(1524.6)				No report plotted ~~for hydrographic~~	
			118° 34' 51.416"	1067.2	(178.1)				use	
CP #46A (UL1416+04.05)	"	"	47° 56' 27.419"	846.9	(1006.3)				"	
			118° 33' 31.857"	661.2	(584.1)					
CP #50 (UL1555+23.04)	"	"	47° 54' 43.152"	1332.8	(520.4)				"	
			118° 31' 41.407"	859.8	(386.1)					
CP #55 (UR1895+02.85)	"	"	47° 55' 17.525"	541.3	(1311.9)				"	
			118° 33' 11.467"	238.1	(1007.6)					
CP #59 (UR2052+02.58)	"	"	47° 53' 32.525"	1004.5	(848.6)				"	
			118° 32' 54.277"	1127.6	(118.9)					
CP #42 (UL1268+04.26)	"	"	47° 56' 04.191"	129.5	(1723.7)				"	
			118° 36' 37.377"	775.8	(469.6)					
CP #63 (UR2241+81.28)	"	"	47° 52' 10.907"	336.9	(1516.2)				Not used in rad-	
			118° 30' 04.157"	86.6	(1160.0)				~~ial plot, plotted~~ for use of Hydro-	
									graphic party	

1 FT. = .3048006 METER

COMPUTED BY: F.H.Elrod DATE August 1947 CHECKED BY: J.L.Harris DATE 10/27/47

M-2388-12

copy Cit

MAP T-8854 PROJECT NO. Ph 2(45) SCALE OF MAP 1:10000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
CP#60 (UL1876+89.70) 1934 r. 1947	Field Comp.	N. A. 1927	47° 52' 42.857"	1323.6	(529.5)				Used in radial	
			118° 27' 08.938"	185.7	(1061.0)				plot	
CP#62 (UL 1947+28.77) 1934 r. 1947	"	"	47° 51' 37.843"	1168.8	(684.3)				"	
			118° 26' 50.309"	1045.7	(201.4)					
CP#69 (UR2503+40.70) 1935 r. 1947	"	"	47° 50' 20.146"	622.2	(1230.9)				"	
			118° 26' 38.573"	802.1	(445.6)					
HOUSTON 1934 r. 1947	G6760 USBR 1039	"	47° 51' 24.330"	751.4	(1101.7)				"	
			118° 28' 39.855"	828.5	(418.7)					
BANK 1934 r. 1947	G6760 USBR 1040	"	47° 50' 44.860"	1385.5	(467.6)				"	
			118° 25' 40.824"	848.8	(398.7)					
LUNDSTROM 1934 r. 1947	G6760 USBR 1039	"	47° 53 21.920"	677.0	(1176.1)				"	
			118° 29' 44.642"	927.4	(319.0)					
JACOBSEN 1934 r. 1947	G6760 USBR 1040	"	47° 49' 31.368"	968.8	(884.3)				"	
			118° 24' 10.750"	223.6	(1024.4)					
WELSH 1934 r. 1947	G6760 USBR 1039	"	47° 49' 52.339"	1616.5	(236.6)				"	
			118° 26' 26.437"	549.8	(698.0)					
NAOMI 1934 r. 1947	G6760 USBR 1040	"	47° 51' 11.037"	340.9	(1512.3)				"	
			118° 26' 18.482"	384.2	(863.1)					
CROSSOVER 1934 r. 1947	G6760 USBR 1039	"	47° 52' 00.736"	22.7	(1830.4)				"	
			118° 27' 43.255"	899.0	(348.0)					
CASTLE I.S. 1934 r. 1947	G6760 USBR 1068	"	47° 52' 36.621"	1131.0	(722.1)				Not used in	
			118° 26' 40.346"	838.4	(408.4)				radial plot	

1 FT. = .3048006 METER

COMPUTED BY: J.L.Harris DATE 8/22/47 CHECKED BY: F.H.Elrod DATE 8/22/47

M-2388-12

MAP T- 8854 PROJECT NO. Ph2(45) SCALE OF MAP 1:10000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
CP #56 (UL1781+75.31) 1934 r.1947	Field Comp.	N. A. 1927	47° 52' 56.243"	1737.1	(116.0)				(Recovered for use	
			118° 29' 03.632"	75.5	(1171.1)				as hydrographic	
CP #58 (UL1830+95.66) 1934 r.1947	"	"	47° 53' 05.520"	170.5	(1682.6)				~~signal not ident~~ " ified.)	
			118° 27' 56.956"	1183.3	(63.3)					
CP # 64 (UL2032+99.70) 1934 r.1947	"	"	47° 50' 34.243"	1057.6	(795.5)				"	
			118° 25' 36.110"	750.8	(496.8)					
CP #67 (UR2407+52.82) 1934 r.1947	"	"	47° 51' 33.964"	1049.0	(804.1)				"	
			118° 27' 39.566"	822.4	(424.8)					
CP #65 (UR2311+11.58) 1934 r.1947	"	"	47° 52' 22.647"	699.5	(1153.6)				"	
			118° 28' 51.059"	1061.1	(185.8)					
CP #71 (UR2555+98.69) r.1947	"	"	47° 50' 00.411"	12.7	(1840.4)				"	
			118° 25' 29.765"	619.0	(628.8)					
CP #73 (UR2617+59.76)	"	"	47° 49' 52.791"	1630.5	(222.6)				n.c.	
			118° 24' 47.754"	993.4	(254.7)					

1 FT. = .3048006 METER

COMPUTED BY: F.H.Elrod DATE August 1947 CHECKED BY: J.L.Harris DATE 8/29/47

M-2388-12

Copy

MAP T- 8855 PROJECT NO. Ph2(45) SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
CP #66 (UL2112+47.16)	Field Comp.	N. A. 1927	47° 50' 33.608"	1038.0	(815.1)				Used in radial	
1935 r. 1947			118° 23' 41.387"	860.6	(387.0)				plot	
CP #75 (UR2728+77.42)	"	"	47° 49' 15.603"	481.9	(1371.2)				"	
1935 r. 1947			118° 22' 22.225"	462.3	(785.8)					
CP #79 (UR2881+27.74)	"	"	47° 48' 48.212"	1489.0	(364.1)				"	
1935 r. 1947			118° 19' 41.203"	857.2	(391.1)					
CP #77 (UR2799+36.18)	"	"	47° 48' 51.587"	1593.3	(259.8)				"	
1935 r. 1947			118° 21' 21.014"	437.2	(811.1)					
CP #81 (UR2958+73.94)	"	"	47° 49' 00.387"	12.0	(1841.1)				"	
1934 r. 1947			118° 20' 12.929"	269.0	(979.2)					
CP #85 (UR3085+68)	"	"	47° 49' 39.800"	1229.2	(623.9)				"	
1934 r. 1947			118° 21' 58.318"	1213.0	(34.9)					
CP #87 (UR3171+14.81)	"	"	47° 50' 30.153"	931.3	(921.8)				"	
1934 r. 1947			118° 20' 53.613"	1114.8	(132.8)					
EMERSON	G6760 USBR	"	47° 52' 13.301"	410.8	(1442.3)				"	
1934 r. 1947?	1040		118° 20' 22.876"	475.4	(771.5)					
SPIRE, SWEDE	G6760 USBR	"	47° 52' 33.488"	1034.3	(818.8)				"	
CHURCH 1935 r. 1947	1068		118° 19' 22.571"	469.0	(777.8)					
DUNE	USBR	"	47° 51' 48.836"	1508.3	(344.8)				"	
1934 r. 1947	1040		118° 22' 23.884"	496.4	(750.7)					
CHINA	USBR	"	47° 50' 50.777"	1568.2	(284.9)				"	
1934 r. 1947	1040		118° 23' 38.993"	810.7	(436.7)					
Sta "L" Hawk Cr. Trav.	Field Comp.	"	47° 49' 06.359"	196.4	(1656.7)				Plotted for use	
1935			118° 20' 25.612"	532.8	(715.4)				of hydrographic party	

In library r/Archives under G72 944 1947 G-7380

1 FT. = .3048006 METER

COMPUTED BY: J.L.Harris DATE 8/22/47 CHECKED BY: F.H.Elrod DATE 8/22/47

M-2388-12

Sheet 2

MAP T. 8855 PROJECT NO. Ph2(45 SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
Sta."K" Hawk Cr Trav. 1935	Field Comp.	N.A. 1927	47° 49' 07.284"	225.0	(1628.1)				(plotted for use of hydrographic party)	
			118° 20' 33.881"	704.8	(543.4)					
Sta"M" Hawk Cr Trav. 1935	"	"	47° 49' 03.597"	111.1	(1742.0)				"	
			118° 20' 19.052"	396.3	(851.9)					
CP #91 (UR3377+91.11) 1935 E 1947	"	"	47° 51' 52.408"	1618.5	(234.5)				Not used in	
			118° 20' 37.388"	777.1	(470.0)				radial plot	
CP #89 (UR3279+87.15) 1935 E 1947	"	"	47° 51' 13.965"	431.3	(1421.8)				"	
			118° 20' 20.073"	417.3	(830.0)					
CP #68 (UL2198+87.19) 1934 E 1947	"	"	47° 51' 29.158"	900.5	(952.6)				"	
			118° 22' 09.601"	199.6	(1047.6)					
CP #70 (UL2268+60.67) 1934 E 1947	"	"	329,290.58	1307.8	(216.2)		Wash. North Zone		"	
			2,606,718.39	523.8	(1000.2)					
CP #93 (UR3447+22.02) 1935 E 1947	"	"	329,591.49	1399.5	(124.5)		"		"	
			2,611,458.89	444.7	(1079.3)					
HAWK CREEK 20 Lt. 1947	Topo. "	"	47° 49' 39.77"	1228.3	(624.8)				"	
			118° 21' 57.24"	1190.5	(57.4)					

1 FT. = .3048006 METER

COMPUTED BY: J. L. Harris DATE January 1948 CHECKED BY: R. A. Davidson DATE January 1948

M-2388-12

MAP T-8856 PROJECT NO. Ph-2(45) SCALE OF MAP 1:10000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
C.P. #76 (UL2511+90.07) 1935 r. 1947		N. A. 1927	352,281.67	695.5	(828.5)		Wash. North Zone		Used in radial	
			2605,544.89	166.1	(1357.9)				plot	
r. 1947 MILES 1934	USER 1041	"	47° 53' 12.523"	386.8	(1466.3)				"	
			118° 19' 51.559"	1071.2	(175.3)					
r. 1947 CLIFF 1935	USER 1045	"	47° 55' 05.248"	162.1	(1691.0)				"	
			118° 18' 36.035"	748.2	(497.6)					
r. 1947 LINCOLN 1934	USER 1033	"	47° 55' 13.906"	429.5	(1423.6)				"	
			118° 19' 29.064"	603.4	(642.3)					
r. 1947 LANTZY 1935	USER 1045	"	47° 54' 27.874"	860.9	(992.2)				"	
			118° 19' 57.308"	1190.1	(55.9)					
r. 1947 FALCON 1935	USER 1041	"	47° 54' 37.363"	1154.0	(699.1)				"	
			118° 22' 13.912"	288.9	(957.1)					
r. 1947 THREE MILE 1935	USER 1041	"	47° 57' 37.228"	1149.8	(703.3)				"	
			118° 22' 30.844"	639.9	(604.9)					
r. 1947 PEARL 1935	USER 1041	"	47° 53' 31.326"	967.5	(885.6)				"	
			118° 21' 25.571"	531.2	(715.2)					
r. 1947 MITRE 1935	USER 1041	"	47° 57' 32.262"	996.4	(856.8)				"	
			118° 20' 32.806"	680.6	(564.2)					
C.P. #72 (UL2339+94.39) 1935 r. 1947	Field Comp. 6-7380	"	336,155.97	352.3	(1171.7)		Wash. North Zone		Not in radial	
			2,608,426.20	1044.3	(479.7)				plot	
C.P. #80 (UL2659+88.49) r. 1947	" 9-44 8-72 1947	"	366,110.14	338.4	(1185.6)		" " "		"	
			2,603,096.54	943.8	(580.2)		" " "			
C.P. #95 (UR3549+72.98)=C.P. 1srs (C+00) 1935	" Library r. 1947	"	335,614.01	187.2	(1336.8)				"	
			2,614,928.34	1502.2	(21.8)					

1 FT. = .3048006 METER

COMPUTED BY: F.H.Elrod DATE 8/22/47 CHECKED BY: J.L.Harris DATE 8/25/47

M-2388 (12)

MAP T- 8856 PROJECT NO. Ph-2(45) SCALE OF MAP 1:10,000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
C.P.#97(UR3585+71.46)=C.P.2 SRN (0+00) - 1935	F. 1947 Field Comp.	N.A. 1927	339,080.45	1243.7	(280.3)		Mash. North Zone		Not in radial	
			2,615,897.06	273.4	(1250.6)				plot	
C.P. # 101 (UR3754+80.60) F 1947 - 1935	"	"	348,811.43	1161.7	(362.3)		"	"	"	
			2,611,236.17	376.8	(1147.2)					
C.P. # 103 (UR3817+84.81) F 1947 1935	"	"	354,530.03	1380.8	(143.2)		"	"	"	
			2,609,778.80	1456.6	(67.4)					
C.P. # 105 (UR3873+60.44) F. 1947 1935	"	"	358,331.78	1015.5	(508.5)		"	"	"	
			2,609,484.23	1366.8	(157.2)					
C.P. # 107 (UR3955+41.52) F. 1947 1935	"	"	362,878.89	877.5	(646.5)		"	"	"	
			2,609,561.42	1390.3	(133.7)					
C.P. 3, SRS (62+71.30) F. 1947 1935	"	"	339,876.11	1486.2	(37.8)		"	"	"	
			2,617,955.09	900.7	(623.3)					
			342,932.26							
C.P. 74 (UL 24/4+85.72) 1935			2,606,968.03				no recov.		for hydro. use	
			360,388.81				"	"	"	"
C.P. 78 (UL 25/4+52.32) 1935			2,605,050.32							

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: F.H.Elrod DATE 8/22/47 CHECKED BY: R.A.Davidson DATE 8/25/47

FIELD INSPECTION REPORT
Area of the Second Radial Plot
Project PH-2(45)

1. Description of the Area:

The area of the second radial plot unit is ~~comprised~~ composed of 4 shoreline surveys numbered 8853 to 8856 inclusive. It includes that portion of the Franklin D. Roosevelt Lake between the San Poil and the Spokane Rivers. The Lake meanders east and west through a deep and wide canyon and roughly bisects the area.

The topography along the north and south sides of the Lake and inland is similar to that found in the area of the first radial plot unit. Heavily wooded areas are found especially on the west side of the Lake in 8855 and 8856. Wooded areas and cultivated lands are found on the east side in these sheets.

One major state highway traverses the east side of the area; State Highway No. 22, a north-south highway, it crosses the Spokane branch of the reservoir adjacent to the townsite of Miles and continues northward along the east side of the Lake. Several gravel and dirt roads extend down the canyons toward the reservoir. There are no railroads in the area.

A post office and a few buildings mark the site of Miles. The only other town is Lincoln in sheet 8854 ; its chief industry is lumber. In this vicinity tugs may be seen towing log rafts along the Lake.

The Grand Coulee Navigation Company makes daily excursions between Miles and Coulee Dam, Wn.

For additional information refer to "The Field Inspection Report, Area of the First Radial Plot" side heading 1 under the general description of the project area and paragraphs 4, 5, 6, 7, and 9.

2. Completeness of Field Inspection:

The field inspection for the clarification of details on the photographs, and for the classification and identification of roads, shoreline, buildings, et cetera, has been completed in accordance with the instructions for this Project dated 3 April 1947. For additional information see side heading 2 of the "Field Inspection Report for the Area of the First Radial Plot".

3. Interpretation of the Photographs:

Refer to this side heading of the "Field Inspection Report for the Area of the First Radial Plot".

4. Horizontal Control:

Idem

5. Vertical Control:

Idem

6. Contours and Drainage:

Idem

7. Shoreline Plane of Reference:

Idem

8. Low-Water Line:

Idem

9. Wharves and Shoreline Structures:

There are no dolphins, piling, wharves or shoreline structures in the area except for several booms and floating docks (floats), which were deleted, in the vicinity of Lincoln Mills and Miles, Wn.

10. Details Offshore from the Shoreline Plane of Reference:

In areas where the formation of the shore is granitic or basaltic, numerous submerged rocks and ledges are found or suspected. Rocks found awash or bare at the shoreline plane of reference have been noted on the field photographs. The heigth of rocks baring above the plane, likewise, has been noted. Sandy shoal areas are confined generally to those areas where slides have occured.

No other offshore obstructions were found.

11. Landmarks and Aids to Navigation:

A selection of prominent objects along the shore was made and these were recommended for future charting. In addition, objects of lesser prominence were recommended because of a paucity of landmarks.

A complete investigation of 4 fixed aids to navigation was made in the field. They were either identified directly on the photographs if visible or by instrumental methods. Their correct names were verified from the latest edtion of the "Light List - Pacific ". No discrepancies were found in the Light List with regard to their distinctive markings, et cetera.

The practice of locating a topographic station by a sextant fix to other topographic or photo hydro stations was discontinued in this radial plot. Topographic stations established by instrumental methods consisted of three-point theodolite or transit fixes with check angles on triangulation stations.

All landmarks recommended for charting and fixed aids to navigation have been reported on Form 567 as well as on Form 524.

12. Hydrographic Control:

Photo hydro stations were established in accordance with the instructions for this Project. In areas of overhanging bluffs or cliffs and in areas where there were no identifiable objects on the photographs, photo hydro stations were established by gound instrumental work.

With the exception of sheet 8853, the practice of locating a photo hydro

station by a sextant fix taken to other photo hydro stations was discontinued in the second radial plot. This is in accordance with the letter on the subject of locating photo hydro stations from the Acting Director dated 9 July 1947.

The photo hydro stations were designated and described briefly on the field photographs in accordance with the instructions. In addition, they have been listed and described in sketch book volume 3. *List attached hereto.*

13. Landing Fields and Aeronautical Aids:

There were no landing fields or aeronautical aids in this area.

14. Road Classification:

Refer to this side heading of the "Field Inspection Report, Area of the First Radial Plot, Project PH-2(45)". *("According to Instructions No. 10, 14 Apr. 1947").*

15. Bridges and Cable Crossings:

There is one bridge in the area; it spans the Spokane River near its mouth in sheet 8856.

Name: Spokane River Bridge (local name)
Location: Mouth of Spokane River
Owner: Washington State Highway Commission
Kind: Fixed
Number of Spans: 1
Channel Span: Horizontal clearance - 431 feet (center of pier to center of pier)
Vertical clearance of lowest part above MLW - Not applicable
MHW - 36 feet
Purpose of Bridge: Highway
Date of Field Measurements: 8/14/47

A single strand telephone cable crossing is found just northeast of the Spokane River Bridge. The vertical clearance determined on 8/14/47 is 68.0 feet.

There were no other overhead or submarine cable crossings over navigable waters found within the limits of this area.

16. Buildings and Structures:

A complete field investigation was made of any buildings and structures along the waterfront. Inland only those buildings and structures were identified that were visible from the water. Inland all public buildings were noted for which there was photograph coverage.

17. Boundary Monuments and Lines:

Refer to this side heading of the "Field Inspection Report, Area of the First Radial Plot...".

18. Geographic Names:

Idem

"Two special reports for areas Nos. 8849 & 8859 incl.; & Nos. 8860 to 8872 incl."

20. Ferries:

A privately owned ferry (Lincoln Ferry) about a mile north of the mouth of the Spokane River is found in sheet 8856. The ferry is not available to the public and maintains no definite schedule of operations.

21. Field Photographs:

Refer to this side heading of the "Field Inspection Report, Area of the First Radial Plot...".

22. Symbols and Color Scheme:

Idem

Approved by:
J. T. Jarman,
Chief of Party

Respectfully submitted:
Charles Hanavich,
Topographic Engineer

COMPILATION REPORT
Map Manuscripts T-8853 to 8856 Inclusive
Area of the 2nd Radial Plot
Project Ph-2(45)

26. Control:

Forty-one horizontal control stations were recovered and identified by the field parties for use in controlling the radial plot in the area of these four map manuscripts. Of this number, thirty-three of the objects selected for sub-stations could be identified with certainty on a majority of the photographs; however, the other eight sub-stations could only be seen on the photographs on which they were identified by the field party. The thirty-three sub-stations, which could be identified with certainty, were sufficient to control the radial plot.

Because of insufficient end lap in line of flights, the use of the stereoscope was limited for transferring horizontal control stations and photo hydro signals from one photograph to another. This often made it impossible to obtain stereoscopic vision when viewing a stereoscopic pair. (See paragraph 2 of letter 711-rs, dated 23 September 1947, on the subject of photographs.)

All horizontal control stations, which were recovered by the field party, were plotted on the map manuscripts. In addition, at the request of the hydrographic party all unrecovered USBR 3rd order stations lying along the shore of the lake, which were not found to be destroyed, were plotted. This was done in order to facilitate their recovery by the hydrographic party if they were needed. The original descriptions for this 3rd order control were written prior to the time that the lake was impounded, and were therefore inadequate. These unrecovered stations were indicated by a dashed line triangulation station symbol, and a note pertaining to same was lettered in the margin of the manuscript.

A complete tabulation of the horizontal control stations shown on these four map manuscripts is contained on several sheets of Form M-2388-12, which are attached to this descriptive report.

27. Radial Plot:

These four map manuscripts, Nos. T-8853 to T-8856 inclusive, were combined into one radial plot known as Radial Plot No. 2, Project Ph-2(45). This radial plot was completed in the same manner as Radial Plot No. 1 which has been fully described under Item 27 of the "Descriptive Report, Map Manuscripts T-8849 to T-8852 Inc., Area of the 1st Radial Plot, Project Ph-2(45)".

28. Detailing:

These maps were compiled in accordance with instructions for Project Ph-2(45). Features and symbols were shown as indicated in Photogrammetry Instructions No. 10, 12, and 17.

The transforming printer at the Washington Office was not in proper adjustment at the time the photographs were printed, and they could not be oriented in their entirety at the compilation table when radially plotting various types of pass points. Enough pass points, however, had been established during the radial plot so that each chamber of each photograph could be separately oriented. For at least two of the chambers on each photograph it was found necessary to de-center the photograph radially-to or from the chamber being oriented-so that the radials to the pass points and horizontal control stations in the chamber would pass through their positions on the map manuscript. Detailing was accomplished in the following manner:

1. All photo hydro signals, and shoreline pass points were radially plotted. Because of difficulties which have arisen on this and other projects, and in order to insure the accuracy of photo hydro signals, the located positions were then verified by a supervisor, and all questionable signals were rejected. (Shoreline pass points of two radial intersections are shown with green, waterproof ink circles on the reverse side of the map manuscripts.)
2. The shoreline was detailed from those photographs on which it was clearly visible and on which the bluffs were displaced outward from the center. (It might be stated that there were cases, particularly at the heads of narrow coves where displaced banks, cliffs and trees, and insufficient photograph coverage made it difficult to delineate the shoreline. In many of these places, stereoscopic vision could not be obtained. The shoreline in these areas was detailed after all photographs had been studied. It is, however, subject to minor changes by the hydrographic party.)
3. Pass points for use in detailing inshore planimetric features were located and the compilation of the sheet was completed.
4. A careful review was made of all radially plotted pass points and planimetric details.

Ozalid prints of the completed map manuscripts were furnished to the hydrographic party; however, it is recommended that they be used for reference purposes only. As many difficulties were encountered when transferring hydrographic signals and shoreline from distorted ozalid prints to boat sheets, it is hoped that the hydrographic party can be furnished boat sheets for their 1948 field work similar to those which were made for the Willamette River hydrography. (Photogrammetric Project Ph-13(46) and Hydrographic Project CS-323)

Because of insufficient photograph coverage, a small area in the northwestern part of T-8853 could not be completed to the limits of the map manuscript. In the area of T-8856 the nine lens photographs were supplemented by U. S. Army single lens photographs, Scale: 1:20000.

Whenever possible the stereoscope was used to aid in determining the location of the tops of bluffs along the shoreline. The location of these bluffs could be determined more readily from photographs on which they were displaced away from the water line and from the principal point of the photograph. Detail pass points were radially plotted near or along the tops of these bluffs so that they could be compiled as accurately as possible.

In many places it was very difficult to identify sufficient pass points for the compilation of roads. This was particularly true in areas of severe changes in relief, and in places where roads wound through dense woods. Similar conditions caused trouble in compiling the drainage, especially since the use of the stereoscope was very limited in interior areas.

Because of the numerous new roads and many changes in road alignment, it was found easier to compile all through roads as they appeared on the photographs rather than to make comparisons with old surveys and quadrangles, and to compile only the changes as suggested in the instructions for this project.

It is believed that all provisions of Paragraph 32 of the Instructions relative to drafting have been applied to the map manuscripts.

29. Supplemental Data:

The following maps, which are being forwarded with the map manuscripts, were used to supplement the photographs:

Black and White Prints-- 3 each-Bureau of Reclamation Index Maps Nos. 7, 8, and 9, Grand Coulee Dam.

The following map, which was also used, will be forwarded when the project is completed:

Black and White Print-- Existing and Relocated Highways and Railroads, Scale 1"=4 miles.

30. Mean High-Water Line: (Lake Shoreline at the adopted plane of reference.)

A complete discussion of this feature may be found in Paragraph 7 of the "Field Inspection Report, Area of the First Radial Plot" which was forwarded on 13 February 1948.
A profile of the reservoir water-level, from Grand Coulee Dam & the International Boundary, is attached to the Descriptive Report for the Fifth Radial Plot (T-8863 & T-8865)

The mean high-water line (Lake shoreline at the adopted plane of reference) is shown by a continuous, black, acid ink line, 008" in thickness, at a plane 1290.0 ft. above Mean Sea Level. There are no marsh areas bordering the shoreline.

31. Low-Water and Shoal Lines:

The field inspection unit did not indicate any low-water lines within the limits of these four map manuscripts.

Approximate shoal lines have been shown by a light, dashed, black acid ink line, as indicated by the field party.

32. Details Offshore from the Mean High-Water Line:

Several, small, rocky islands are the only details offshore from the Mean High-Water Line. Many rocks, adjacent to the shoreline, have been shown. (Refer to Paragraph 10 of the Field Inspection Report.)

33. Wharves and Shoreline Structures:

Refer to Paragraph 9 of the Field Inspection Report.

34. Landmarks and Aids to Navigation: Ch. Let. No. 154 (1948)

Form 567, recommending the following landmarks for charting is attached:

HOUSE, South Gable----------T-8853
STACK, Black, (145 ft. high)---------T-8854
TANK, Wood, (40 ft. high)----------T-8854

Form 567, recommending the charting of the following non-floating aids to navigation is attached:

Hells Gate Island 13 Light----------T-8853
Whitestone Creek 15 Light----------T-8853
Upper Hells Gate Daybeacon 14--------T-8853
Moonshine Canyon 16 Light----------T-8853
Halverson Canyon 17 Light----------T-8854
Goat Pasture 18 Light----------T-8854
Hawk Creek 20 Light----------T-8855
Rock Island Daybeacon 19----------T-8855
Spokane River 22 Light----------T-8856
Three Mile 21 Light----------T-8856
Fox Canyon 24 Light----------T-8856

35. Hydrographic Control:

Statistics on signals in the area of these four map manuscripts are as follows:

Sheet No.	Signals Pricked by Field Parties	Signals Rejected	Photo hydro signals
8853	84	23	61
8854	51	7	44
8855	48	3	45
8856	78	11	67

In most cases, the signals selected by the field party could be identified on a majority of the photographs of the area involved. Most of the signals, which were rejected, were located in dense tree areas, or hidden by displaced cliffs or ridges, and could not be identified with certainty on enough photographs to establish strong positions. (The field party could not determine this point with alternate photographs.) Due to previous difficulties, exceptional care has been taken in pricking and radially plotting the photo hydro signals shown on these four map manuscripts. Their locations were not only verified by the reviewer and the supervisor in charge of compilation, but a final examination of this part of the work also was made by the Chief of Party, who rejected any signal on which a perfect intersection could not be obtained. These multiple checks should eliminate the difficulties which the hydrographic party encountered in the first sheets in this project.

A list of the photo hydro signals, shown on these four map manuscripts, is attached to this descriptive report.

36. Landing Fields and Aeronautical Aids:

There are no landing fields or aeronautical aids in this area. There is however, a small private dirt runway at Lincoln

37. Geographic Names:

Geographic Names are the subject of a special report, "Investigation of Geographic Names, Sheets 8849 to 8859 inclusive, Project Ph-2(45)" which has been submitted to the Washington Office by the field party.
Lists of approved names attached to this Descr' Rep't.

38. Recoverable Topographic Stations:

Copies of Form 524 are being submitted for all of the stations listed under Item 34, "Landmarks and Aids to Navigation". No other recoverable topographic stations were selected by the field party, or radially plotted at the compilation office. Form 524 filed in the Div. of Photogr. General Files.

39. Junctions:

Complete and satisfactory junctions have been made between all map manuscripts in this and adjacent radial plots.

40. F. D. Roosevelt Lake Reservation Line:

Please refer to Item 40 in the Descriptive Report for the 1st Radial Plot, Project Ph-2(45). *letter 7 Nov. 1947. (Bdy. not to be delineated.)*

44. Comparisons with Existing Topographic Surveys:

All existing maps of the area were at a much smaller scale, and were made before the waters of the F. D. Roosevelt Lake were impounded. Due to these facts, only a visual comparison could be made.

45. Comparisons with Nautical Charts:

There are no nautical charts of the area.

Respectfully submitted,

J. Edward Deal Jr.

J. Edward Deal Jr.
Photogrammetric Engineer

Approved after additional comments were added:

Robert A Earle

Robert A. Earle
Chief of Party

:jr

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Project Ph-2(45)
Area of Second Radial Plot
T-8853 to T-8856 inclusive

p. 1

TO BE CHARTED } STRIKE OUT ONE
~~TO BE DELETED~~

LANDMARKS FOR CHARTS
(Fixed Aids to Navigation)

Coulee Dam, Washington July & Aug., 1947

I recommend that the following objects which have (~~have not~~) been inspected from seaward to determine their value as landmarks, be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing. J. E. Deal

J. T. Jarman & R. A. Earle
Chief of Party.

GENERAL LOCALITY FRANKLIN D. ROOSEVELT LAKE

NAME AND DESCRIPTION	POSITION						DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE			LONGITUDE									
	°	′	D. M. METERS	°	′	D. P. METERS							
T-8853 Hells Gate Island 13 Lt.	47	55	(261.5) 1591.6	118	36	(68.0) 1177.5	N.A. 1927	Radial Plot	1947				Area not charted
T-8853 Upper Hells Gate Daybeacon 14	47	55	(1789.8) 63.3	118	32	(162.8) 1083.0	"	"	"				"
T-8853 Whitestone Creek 15 Lt.	47	56	(1664.4) 188.8	118	32	(450.2) 795.2	"	"	"				"
T-8853 Moonshine Canyon 16 Lt.	47	52	(1000.3) 852.8	118	32	(1129.1) 117.7	"	"	"				"
T-8854 Halverson Canyon 17 Lt.	47	52	(426.3) 1426.8	118	27	(335.9) 911.2	"	"	"				"
T-8854 Goat Pasture 18 Lt.	47	50	(1035.4) 817.7	118	26	(282.0) 965.6	"	"	"				"
T-8855 Hawk Creek 20 Lt.	47	49	(624.8) 1228.3	118	21	(57.4) 1190.5	"	Traverse	"				"
T-8855 Rock Island Daybeacon 19	47	51	(804.7) 1048.4	118	21	(165.6) 1081.5	"	Radial Plot	"				"
T-8856 Spokane River 22 Lt.	47	53	(101.1) 1752.0	118	20	(1209.4) 36.8	"	"	"				"
T-8856 Three Mile 21 Lt.	47	56	(1495.0) 358.2	118	21	(484.6) 760.7	"	"	"				"
T-8856 Fox Canyon 24 Lt.	47	58	(1803.0) 50.1	118	20	(337.1) 907.5	"	"	"				"

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 69675

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Project Ph-2(45)
Area of Second Radial Plot
T-8853 to T-8856 inclusive

p. 2

TO BE CHARTED
~~TO BE DELETED~~ } STRIKE OUT ONE

Coulee Dam, Washington July, 1945

I recommend that the following objects which have (~~have not~~) been inspected from seaward to determine their value as landmarks, be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing. J.E.Deal

J. T. Jarman & R. A. Earle
Chief of Party.

GENERAL LOCALITY FRANKLIN D. ROOSEVELT LAKE

NAME AND DESCRIPTION	POSITION						METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE			LONGITUDE		DATUM						
	° ′	D. M. METERS		° ′	D. P. METERS							
T-8853 HOUSE, South Gable	47 56	(1422.9) 430.3		118 32	(324.7) 920.6	N. A. 1927	Radial Plot	1947				Area not charted
T-8854 Stack, black (145 feet high)	47 49	(303.0) 1550.1		118 24	(517.6) 730.3	"	"	"				"
T-8854 Tank, wooden (40 feet high)	47 49	(323.8) 1529.3		118 24	(439.2) 808.7	"	"	"				"

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 8-0675

Hydrographic Signal Sites
Project Ph-2(45)
Sheets 8853-8854-8855 & 8856

5301	Orange flag on stake in bush
5302	D/S of 2 pines, white banner
5302A	White flag on forked tree. (Trans. from 8851-was 5176)
5303	White rag on greasewood
5304	Large lone pine, Orange Banner
5306	White wrapped pine
5307	Red and Orange stripe on stake
5308	Small bushy pine in clearing red flag
5309	Square orange banner on lone pine
5311	White flag on dead top pine
5313	White flag on pine
5316	N. gable of gray house
5317	White flag on point of rock below bluff
5318	Sq. White Signal Cl. on tree
5319	Orange banner on dead pine
5320	Orange rag on small pine
5322	Red flag on pine tree
5323	White flag on point of rock
5324	Lone pine, top of bluff
5325	Orange flag on small bush
5326	D/S of 2 pines on grass bank in slide area
5327	Red flag on pt. of rock

5328	Orange flag on pine
5329	White rag on greasewood bush
5330	Red strip on snag
5332	White strip on largest pine
5333	Orange wrapped pine
5334	D/S gable, tin roofed barn
5335	Tip of rock pinnacle
5336	White Cloth on dying pine
5337	Center of off-lying rock
5339	Large whitewashed rock
5340	Red and white strips on stake in outlying rock
5341	White rag on bush
5345	Orange Sig. Cl. on pine
5349	Red and white strips on stake in bush
5351	Orange Sig. Cl. on greasewood
5353	Lone Pine, back from shore
5355	Orange cloth on pine
5356	Prominent tall spindly pine
5357	Whitewashed point of island
5360	Dead top pine at side of old road
5361	Small pine in cove
5364	White Sig. Cl. on trimmed pine
5366	Red Sig. Cl. on pine
5367	White flag on pine nearest water
5368	Orange and red sig. cl. on stake
5369	Orange flag on pine
5370	Red and white strips on lath on island
5371	Orange and red strips on stake

5372	White cloth on pine
5373	Lone pine tree
5374	Orange Sig. Cl. on pine
5375	Bushy pine
5379	Small single pine
5381	White Sig. cloth on bush
5383	Red Sig. Cl. on bush
5385	Red and white strips on stake at W. edge of dry wash
5387	Yellow and white flag on stake in bush
5389	Red and white strips on stake in bush, side of road
5401A	White wrapped pine
5401	Whitewashed rock point
5402	Red and white strips on stake
5403	Red Sig. Cl. on pine
5405	White Sig. Cl. on lone pine
5406	Red wrapped spindly pine
5409	Red and white strips on lath
5410	Bushy pine at U/S end of slide
5411	White flag at inshore point of small cove
5412	Off-shore of 2 pines, White Sig. Cl.
5413	Red Sig. Cl. on Pine, 2m from H.W.L.
5414	Red Sig. Cl. on pine on fence
5415	White Sig. Cl .on pine on clay bank
5416	White Sig. Cloth on pine
5419	Red Sig. Cl. on pine at H.W.L.
5421	White Sig. Cl. on D/S pine
5422	Red cloth on pine

5423 Orange Sig. Cl. on off-shore pine

5424 White cloth on pine at H.W.L.

5425 White Sig. Cl. on lone pine

5427 Leaning tree, redcloth

5428 White Signal Cloth on Pine

5429 White Cloth on pine

5430 Red Sig. Cl. on small pine

5431 Red cloth on tree in rock

5432 Bushy pine at upper side of brush patch

5433 Orange Sig. Cloth on pine

5434 White Sig. Cl. on pine nearest water

5435 White cloth on pine in granite

5436 Top of large pine on east side of draw

5437 Outer tip of round rock, whitewashed

5438 White Sig. Cl. on large pine tree

5439 Small red banner D/S end isolated rock

5440 Orange cloth on bush

5441 Base of pine, trunk flagged white, Medium pine SE of 2 in draw

5442 U/S gable of house

5443 Base of lone pine, not flagged

5444 Red wrapped trunk of pine

5445 Red banner on greasewood bush

5446 White Sig. Cl. on pine

5447 White Sig. Cl. on greasewood

5448 Red Sig. Cl .on D/S pine of 2

5450 White Sig. Cl .on pine near float

5452 D/S gable of blue roof house

5501 White Sig. Cloth on pine

5502 White Sig. Cloth on tuft top pine

5503 Red Sig. on pine

5505 White Sig. Cl. on live pine

5507 Red Sig. Cloth on lone pine

5509 White Sig. Cloth on pine on fence

5510 Red Sig. Cl. on pine

5511 Red Sig. Cl. on live pine

5512 White Sig. Cl. on pine

5513 White Sig. Cl. on tallest pine

5514 Red cloth on pine

5515 Red signal Cl. on pine

5516 White Sig. Cl. on South of 2 pines

5517 White Signal cloth on pine

5518 White Sig. Cl. on pine

5519 White Sig. Cl. on lone bush

5520 Red Sig. Cl. on large pine

5522 White Sig. Cl. on small single pine

5524 Red wrapped double pine

5526 Small white wrapped pine on slide

5528 Base of leaning pine, red flag

5530 Red cloth on pine

5532 White flag on pine

5534 Base of inshore of 2 trees

5536 Small fruit tree on point

5538 White Sig. Cl. on pine

5540 Red Signal Cloth on lone pine

5542	Lone Pine on side hill
5544	White Sig. Cl. on pine in basalt
5546	White Sig. Cl. on pine
5548	Sq. White banner on pine
5550	Red wrapped pine
5552	White wrapped pine
5554	Red wrapped pine
5556	White Sig. Cl. on pine
5558	Red Sig. Cl. on pine
5560	White Sig. Cl. on pine
5562	Red Sig. Cl. on dead snag
5564	Red and white strips on pine
5566	White Sig. Cl. on bushy pine
5568	White Sig. Cl. on pine
5570	Base of leaning pine, redcloth
5572	Forked pine, not flagged
5574	White cloth on forked pine
5601A	Red Sig. Cloth on bushy tree = 5521
5601B	White flag on fence corner - 5523
5601	Red Cloth on pine Sapline
5602A	Red signal on tree in draw
5602	White Sig. Cl. on pine
5603	White cloth on pine
5604	Red signal cloth on pine on fence
5606	White Signal Cloth on lone pine
5607	North Easterly and tallest of 2 pines

5608	Red and white strips on stake in bush
5609	Red Cloth on forked top pine
5610	West gable of low building
5611	White Cloth on double pine
5612	Center of E. pier of bridge
5613	Center of W. pier of bridge
5614	West gable of unpainted barn
5615	Red Cloth on pine in draw
5616	White Sig. Cl. on pine
5617	White Sig. Cl. on pine
5619	Red Sig. Cl. on pine in granite
5621A	White strips around thorn bush
5623	White Sig. cloth on center of round bush
5625	Red Sig. Cl. on bush
5626	Not used
5631	White cloth on pine
5633	Red Signal Cloth on Snag
5634	White rag on greasewood
5635	White cloth on snag
5636	Red Sig. Cl. on greasewood bush
5637	West gable of house
5638	White Sig. Cl. on pine
5639	Red Cloth on Snag
5640	Red Sig. Cl. on live pine
5641	White Sig. Cl. on bushy pine
5643	Red and White Strips on stake on Wreckage

5644 Red Signal Cloth on large lone tree

5645 White Sig. Cl. on tufted top pine

5646 White Signal Cl. on pine tree

5647 Red Sig. Cl. on Snag

5648 Red Sig. Cl. on D/S pine

5649 White Cloth on single pine

5650 White Sig. Cl. on pine

5651 Red Cloth on pine

5652 White Signal Cloth on small pine

5653 White Cloth on tall pine

5655 Red Sig. Cl. on live pine

5656 White Sig. Cl. on outer pine of clump

5657 White Sig. Cl. on forked bushy pine

5658 Red Sig. Cl. on large pine

5659 Red Sig. Cl. on offshore of 4 trees

5660 Red Sig. Cl. on offshore of 2 pines

5661 White Sig. Cl. on spindly pine

5662 White Sig. Cl. on small pine on point

5663 Red Sig. Cl. on tree

5664 Red Sig. Cl. on forked pine

5665 White Sig. Cl. on D/S of twin pines

5666 White Sig. Cl. on double pine

5667 Red Sig. Cl. on Dead Snag

5668 Red and white Sig. Cl. on pine

5669 Red Sig. Cl. on dead tree

5671 White Cloth on pine at point of woods

5672 White Sig. Cl. on U/S pine

5673	Red Sig. Cl. on single pine
5675	White Cloth on Snag
5677	Red Sig. Cl. on large pine
5679	White Sig. Cl. on pine nr. H.W.L.
5681	Red Sig. Cl. on pine tree
5683	White Sig. Cl. on bushy pine

GEOGRAPHIC NAMES

Survey No: T-8853

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Washington									USGB	1
Franklin D. Roosevelt Lake									"	2
Lincoln County										3
Ferry County										4
Colville Indian Reservation										5
										6
Hellgate			(hamlet)							7
Hellgate Canyon										8
Hellgate Island										9
Hellgate Road										10
Williams Flats										11
Whitestone Creek										12
Jim Mountain										13
Whitestone Flats										14
Lundstrom Bay										15
Lundstrom Flat										16
Moonshine Bay										17
Jump Canyon										18
Whitestone Rock										19
Spiegel Canyon		(not Spiegle)								20
Penix Canyon										21
										22
					Names underlined in red are approved. 12/30/31 L. Hek					23
										24
										25
										26
										27

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GEOGRAPHIC NAMES

Survey No. T-8854

1 Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Washington									USGB	1
Lincoln County										2
Ferry County										3
Colville Indian Reservation										4
Franklin D. Roosevelt Lake									USGB	5
										6
Lincoln										7
Lincoln Mill		(sawmill at Lincoln)								8
Welch Creek										9
Redwine Creek										10
Goat Pasture										11
Rankin Flats										12
Halverson Canyon										13
Lundstrom Mountain										14
Whitestone Ridge										15
George Mountain										16
George Mountain Lookout										17
George Creek										18
										19
										20
					Names underlined in red are approved. 1/5/49 L. Heck					21
										22
										23
										24
										25
										26
										27

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GEOGRAPHIC NAMES

Survey No. T-8855

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Washington									USGB	1
Franklin D. Roosevelt Lake									"	2
Lincoln County										3
Ferry County										4
Hawk Creek Harbor										5
Hawk Creek										6
Indian Creek										7
Swede Canyon										8
Swede Flats										9
George Creek										10
Rothlisberg School										11
										12
										13
				Names underlined in red are approved. 1/6/49 L. Heck.						14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

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GEOGRAPHIC NAMES

Survey No. T-8856

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Washington									USGB	1
Lincoln County										2
Ferry County										3
Stevens County										4
Franklin D. Roosevelt Lake									USGB	5
Colville Indian Reservation										6
Spokane Indian Reservation										7
State Highway No. 22										8
										9
Old Fort Spokane										10
Miles										11
Spokane River	Spokane River up to Little Falls has been designated as part of Franklin D. Roosevelt Lake U.S.B.M. 10/28/29									12
Threemile Creek										13
Cottonwood Creek										14
Sixmile Creek										15
Castle Rock Creek			(flows in Fox Canyon)							16
Fox Canyon										17
Castle Rock										18
Denison Canyon										19
										20
				Names underlined in red are approved. 1/12/49. L. Heck.						21
										22
										23
										24
										25
										26
										27

M 234

Division of Photogrammetry
Review Report of
Shoreline Map Manuscripts T-8853 to T-8856
Area of the Second Radial Plot, Ph-2(45)

Subject headings not used in this report have been adequately covered in other parts of the Descriptive Report.

Map manuscripts T-8854, T-8855, and T-8856 show the Grand Coulee Independent Grid. A note on the lower margin of map manuscript T-8855 states that this grid is in error (eastward) about 3m. The grid was not removed during review, but a note was attached to each map manuscript to indicate that the grid is to be disregarded. This grid does not appear on previous or subsequent map manuscripts.

26. Control.-Unrecovered U. S. Bureau of Reclamation triangulation stations on this series of map manuscripts were plotted by their geographic positions or by state coordinates (Washington, North Zone) as an aid to the hydrographic party. They are shown by a dashed symbol.

The recovery date for recovered triangulation stations has been left on the map manuscripts to indicate that the coordinate positions have been converted from the Grand Coulee Dam Datum to geographic positions on the N. A. 1927 datum, or on Washington, North Zone, coordinates.

A list of recovered and unrecovered stations (form M-2388-12) is attached to the descriptive report.

Coast and Geodetic Survey triangulation stations (adjusted from U. S. Bureau of Reclamation positions) were plotted on the map manuscripts during review, as follows:

T-8853
Pine Flat, 1937
Hope, I. S. 1934
Flanagan, I. S. 1934
Roth, I. S. 1934
Jump, I. S. 1934

T-8854
Deer, 1934
Coyote, 1934
Halverson, I. S. 1934
Pine Top, I. S. 1934

T-8855
Swede, I. S., 1935

T-8856
Fort, 1935
Mesa, 1935

28. Detailing.-Several portions of the shoreline were altered on T-8853 to conform to photographic and field data. The map manuscripts for the second radial plot meet the required accuracy with respect to shoreline, and near-shore highway delineation. Interior detail is true in general, but less accurate in minor details.

T-8856

The shoreline on T-8856 is subject to corrections as shown in red on H-7700 (1948-49). These corrections were transferred to H-7700 from graphic control survey LR-T-48 (field number) which was subsequently destroyed. HM.Z. 6-1-50

37. Geographic Names.-A separate list for each map manuscript (compiled by the Geographic Names Section) is attached to this compound descriptive report.

43. Comparison with Previous Topographic and Contemporary Hydrographic Surveys.-

There are no previous surveys of the area of Ph-2(45), and the hydrographic survey is in process.

44. Comparison with Existing Quadrangles.-

U.S.E. Davenport, 1:125,000 rep. 1939 (Tactical).

This is a planimetric map which shows the land net, roads, railroads, drainage, county lines, and settlement names.

Except for the land net and boundary lines, the present survey supersedes the quadrangle for their common areas.

Reviewed by:

Lena T. Stevens

Lena T. Stevens
T-8853 30 Dec. 1948
T-8854 4 Jan. 1949
T-8855 6 Jan. 1949
T-8856 13 Jan. 1949

Under the direction of

L. V. Griffith

Chief, Review Section L.H.M.

APPROVED BY:

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