

8857

8858

8859

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

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Planimetric Air Photographic  
Type of Survey Shoreline  
Field No. Ph-2 (45) Office No. T-8857, T-8858 & T-8859

## LOCALITY

State WashingtonGeneral locality F.D.Roosevelt LakeLocality Spokane River, Marble Flats to  
Little Falls1946-'47

CHIEF OF PARTY

J.T.Jarman

LIBRARY &amp; ARCHIVES

DATE November 10, 1949

B-1870-1 (1)

8857  
8858  
8859

## DATA RECORD

T-8857

Quadrangle (II): Davenport, Washington (USE) Project No. (II): Ph-2(45)  
30 minute 1:125,000

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 5/15/47 Copy filed in *Division of*  
~~Report No. T~~ *(VI)*  
*Photogrammetry Office Files.*

Completed survey received in office: 24 April, 1948

Reported to Nautical Chart Section: 5 May, 1948

Reviewed: 28 Jan. 1949 Applied to chart No. Date:

Redrafting Completed: —

Registered: 19 Oct. 1948

Published:

Compilation Scale: 1:10000

Published Scale:

Scale Factor (III): None

Geographic Datum (III): N. A. 1927

Datum Plane (III): Mean Sea Level (USBR, 1935) =  
*Normal Pool Elevation*  
*1290' above*  
*1288.5' USCGS, 1929*

Reference Station (III): MOUND (USBR) 1936<sup>5</sup> r 1947

Lat.: 47° 56' 03.717" (114.8m) Long.: 118° 11' 06.582" (136.6m) Adjusted x  
Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 2,649,040.82

Y = 351,994.99

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Water level</u> <u><del>Stage XXXXXX</del></u>
9 lens				
17489 to 17492 Inc.	8/22/46	12:21 PST	1:10000	1289.6 above MSL
17387 to 17391 Inc.	8/21/46	12:10 PST	1:10000	1289.6 above MSL
U.S. Army				
single lens				
4-2-493 to 6-2-493 Inc.	1944	Unknown	1:20000	Unknown
92-2-493	1944	Unknown	1:20000	Unknown
337W-5M253	7/18/45	Unknown	1:36000	Unknown (See p.3, Compil. Rpt.)

Note:

A print of photograph No. 337-E-16Pl-5-M-253, Scale 1:36000 may be obtained from negatives on file at the office of the Chief of Staff, U.S. Air Force, Washington 25, D.C.

Mean Range: None

Spring Range: None

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

Field Inspection by: See remarks page 3 date: Summer 1947

Field Edit by: None date:

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: James L. Harris date: Jan. 15, 1948

Control checked by: Ree H. Barron date: Jan. 16, 1948

Radial Plot by: J. L. Harris & J. E. Deal date: Jan. 30, 1948

Detailed by: Marie B. Elrod date: March 9, 1948

Reviewed in compilation office by: Ree H. Barron date: March 22, 1948

Elevations on Field Edit Sheet  
checked by: None

date:

*g/b*

STATISTICS (III)

Land Area (Sq. Statute Miles): 44.0 (Complete detail along shoreline)  
(Skeleton detail interior)

Shoreline (More than 200 meters to opposite shore): 22.5 statute miles

Shoreline (Less than 200 meters to opposite shore): 2.5 statute miles

Number of Recoverable Topographic Stations established: 2

Number of Temporary Hydrographic Stations located by radial  
plot: 61

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:

Recovery of horizontal control:

C. Hanavich, J. C. Lajoie, J. H. Winniford

6/27/47 to 11/18/47

Shoreline Inspection:

J. C. Lajoie

11/6/47 to 11/10/47

Interior Field Inspection and Geographic Names

J. H. Winniford

6/29/47 to 7/14/47

*JH*



## DATA RECORD

T-8858

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

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 5/15/47 Copy filed in <sup>Division of</sup> ~~Descriptive~~ Report No. T- (VI)  
*Photogrammetry Office Files*

Completed survey received in office: 28 April, 1948

Reported to Nautical Chart Section: 5 May, 1948

Reviewed: 2 Feb. 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): <sup>Normal Pool Elevation</sup> <sup>1290' above</sup> Mean Sea Level (USBR, 1929)  
<sup>1288.5' USCGS 1929</sup>

Reference Station (III): CROW (USBR) 1935 ± 1947

Lat.: 47° 50' 02.487" (76.8m) Long.: 118° 08' 32.399" (673.8m) Adjusted x  
Unadjusted

State Plane Coordinates (VI): *Washington, North Zone*

X = 2,660,813.06

Y = 315,779.79

Military Grid Zone (VI)

*Q. 1.2*

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Water level</u> <del>STAGE</del> <del>SLAKE</del> <del>TIDE</del>
9 lens				
17419 to 17421 Inc.	8/22/46	10:43 PST	1:10000	1289.6 above M.S.L.
17470 to 17472 Inc.	8/22/46	11:49 PST	1:10000	1289.6 above M.S.L.
17486 to 17488 Inc.	8/22/46	12:12 PST	1:10000	1289.6 above M.S.L.

Tide from (III): None

Mean Range: None

Spring Range: None

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

Field Inspection by: See remarks Page 3 date: Summer 1947

Field Edit by: None date:

Date of Mean High-Water Line Location (III): 8/27/46

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

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

Control plotted by: James L. Harris date: Jan. 16, 1948

Control checked by: Ree H. Barron date: Jan. 16, 1948

Radial Plot by: J. L. Harris & J. E. Deal date: Jan. 30, 1948

Detailed by: Carita Wiebe date: Mar, 31, 1948

Reviewed in compilation office by: Ree H. Barron date: April 8, 1948

Elevations on Field Edit Sheet  
checked by: None date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 42.5 (Complete detail along shoreline)  
(Skeleton detail interior)

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

Shoreline (Less than 200 meters to opposite shore): 3.0 statute miles

Number of Recoverable Topographic Stations established: None

Number of Temporary Hydrographic Stations located by radial  
plot: 46

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:

Recovery of Horizontal Control: 7/30/47 to 11/21/47  
C. Hanavich, J. C. Lajoie, J. H. Winniford

Shoreline inspection: 11/18/47 to 11/21/47  
J. C. Lajoie

Interior Field Inspection & Geographic Names: 7/2/47 to 7/16/47  
J. H. Winniford

9.3

## DATA RECORD

T- 8859

Bissell, Washington (USE)  
 Quadrangle (II): Marcus, Washington (USE) Project No. (II): Ph-2(45)  
 30 minute 1:125000

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  
 5/15/47

Copy filed in *Division of* Descriptive  
~~Report No. T-~~ (VI)  
*Photogrammetry Office Files.*

Completed survey received in office: 28 April, 1948

Reported to Nautical Chart Section: 5 May 1948

Reviewed: 11 Feb 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, 1929)  
*1288.5±' USCGS, 1929*

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

Lat.: 47° 49' 26.227" (810.0m) Long.: 117° 54' 41.229" (857.6m) Adjusted x  
 Unadjusted

State Plane Coordinates (VI): *Washington, North Zone*

X = 2,717,622.33

Y = 3,14,175.95

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Water level</u> <del>XXXXXXXXXX</del>
9 lens				
17413 to 17418 Inc.	8/22/46	10:40 PST	1:10000	1289.6 above M. S. L.
17467 to 17469 Inc.	8/22/46	11:47 PST	1:10000	1289.6 above M. S. L.
U. S. Army Single Lens				
347W-5M253	7/18/45	unknown	1:36000	Unknown
348W-5M253	7/18/45	unknown	1:36000	Unknown

Tide from (III): None

Mean Range: None

Spring Range: None

Camera: (Kind or source) USC&GS 9 lens, focal length 8.25 inches

U. S. Army single lens, focal length 8.25 inches

Field Inspection by: See remarks page 3

date: Summer 1947

Field Edit by: None

date:

Date of Mean High-Water Line Location (III): 8/27/46

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

" " " checked by: Washington Office date: August 1947

Control plotted by: J. L. Harris date: Jan. 16, 1948

Control checked by: Ree H. Barron date: Jan. 16, 1948

Radial Plot by: J. L. Harris & J. E. Deal date: Jan. 30, 1948

Detailed by: Helen Letson date: Mar. 22, 1948

Reviewed in compilation office by: Ree H. Barron date: April 2, 1948

Elevations on Field Edit Sheet

checked by: None

date:

4/3

STATISTICS (III)

Land Area (Sq. Statute Miles): 42.5 (Complete detail along shoreline)  
(Skeleton detail interior)

Shoreline (More than 200 meters to opposite shore): 6.0 statute miles

Shoreline (Less than 200 meters to opposite shore): 7.5 statute miles  
(measured along centerline of river)

Number of Recoverable Topographic Stations established: 1

Number of Temporary Hydrographic Stations located by radial  
plot: 45

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:	
Recovery of horizontal control:	10/17/47 to 11/21/47
C. Hanavich, J. C. Lajoie, J. H. Winniford	
Shoreline Inspection:	11/24/47 to 11/26/47
J. C. Lajoie	
Interior field inspection and geographic names:	7/7/47 to 7/22/47
J. H. Winniford	

8.12



MAP T-8857 PROJECT NO. Ph-2(45) SCALE OF MAP 1:10000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\chi$ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
CRYSTAL 1935 r. 1947	G-6760 USBR 1045	N. A. 1927	47 56 27.893"	861.5 (991.7)			Recovered not identified
MARBLE 1935 r. 1947	G-6760 USBR 1045	N. A. 1927	118 15 53.360"	1107.4 (137.8)			Used in radial plot
FURTH 1936 r. 1947	G-6761 USC&GS 1087	"	47 55 09.477"	292.7 (1560.5)			"
BLUE USER 1935 r. 1947	G-6760 USBR 1046	"	118 15 35.336"	733.6 (512.1)			"
TABLE USER 1935 r. 1947	G-6760 USBR 1046	"	47 54 37.899"	1170.5 (682.6)			"
MOUND USER 1935 r. 1947	G-6760 USBR 1046	"	118 13 55.229"	1146.9 (99.1)			"
CP SRS 11 (373+98.32) 1935 r. 1947	G-6760 USBR 1046	"	47 53 38.753"	1196.9 (656.2)			"
CP 9 SRS (299+16.99) 1935 r. 1947	G-6760 USBR 1046	"	118 08 46.144"	958.5 (287.8)			"
CP 13 SRS (472+67.15) 1935 r. 1947	G-6760 USBR 1046	"	47 57 00.633"	19.6 (1833.6)			"
CP 14 A SRN (438+35.01) 1935 r. 1947	G-6760 USBR 1046	"	118 12 28.285"	586.9 (658.1)			"
CP 18 SRN AP 62 1935 r. 1947	G-6760 USBR 1046	"	47 56 03.717"	114.8 (1738.4)			"
CP SRN 8 (193+66.24) 1935 r. 1947	G-6760 USBR 1046	"	118 11 06.582"	136.6 (1108.8)			"
			353,000.84	914.7 (609.3)			"
			2,642,271.10	692.2 (831.8)			"
			352,722.51	829.8 (694.2)			"
			2,635,136.09	41.5 (1482.5)			"
			344,968.90	1514.5 (9.5)			"
			2,647,539.32	774.0 (750.0)			"
			353,154.84	961.6 (562.4)			"
			2,647,933.51	894.1 (629.9)			"
			343,673.54	1119.7 (404.3)			"
			2,652,085.77	635.7 (888.3)			"
			351,978.28	603.0 (921.0)			"
			2,629,055.30	1236.1 (287.9)			"

meters to grid

1 FT. = 3048006 METER  
COMPUTED BY: F.H. Elrod & J.L. Harris  
CHECKED BY: J.E. Deal  
DATE: 1/5/48  
DATE: 1/6/48  
M-2388-12

No report plotted at request of hydro party



[illegible]

DATE RECORDED - 11 11 1968

COMPUTED BY F. H. Elrod & J. L. Harris

DATE 1/5/48

CHECKED BY: J. E. Deal

11

7/6/48

4

M-2388-12



MAP T. 8858 PROJECT NO. Ph-2(45) SCALE OF MAP 1:10000 SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\nu$ -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)
OLESON 1935 r. 1947	G-6760 USBR 1047	N. A. 1927	47 48 34.744"	1073.1 (780.0)			Used in radial
CROW 1935 r. 1947	"	"	118 05 45.502"	946.7 (301.6)			plot
POINT, SS 1935 r. 1947	G-6760 USBR 1070	"	47 50 02.487"	76.8 (1776.3)			"
RIDGE 1935 r. 1947	G-6760 USBR 1047	"	118 08 32.399"	673.8 (574.0)			"
BURN 1935 r. 1947	"	"	47 49 49.732"	1536.0 (317.1)			"
CP SRS 21 729+71.20 1935 r. 1947	Field Comp.	"	118 06 31.571"	656.6 (591.3)			"
CP SRS 29 1098+37.57 1935 r. 1947	"	"	47 49 50.627"	1563.6 (289.5)			"
ROCK I.S. 1935 r. 1947	G-6760 USBR 1070	"	118 05 04.367"	90.8 (1157.1)			"
CP SRS 23 (838+22.42) 1935 r. 1947	Field Comp.	"	47 52 36.868"	1138.7 (714.4)			"
CP SRS 27 (1011+58.17) 1935 r. 1947	"	"	118 09 50.024"	1039.5 (207.3)			"
CP SRN 22 (AP 219) 1935 r. 1947	"	"	327,516.70	767.1 (756.9)			"
CP SRN 24 (AP 301) 1935 r. 1947	"	"	2,663,061.51	933.1 (590.9)			"
			302,517.19	767.2 (756.8)			"
			2,679,429.45	1350.1 (173.9)			"
			39,736	1227.2 (625.9)			Recovered not identified
			08,581	178.5 (1069.5)			"
			317,660.23	810.8 (713.2)			"
			2,665,824.18	251.2 (1272.8)			"
			307,542.64	775.0 (749.0)			"
			2,674,972.68	1515.7 (8.3)			"
			332,043.08	622.7 (901.3)			"
			2,662,405.67	733.2 (790.8)			"
			318,376.17	1029.1 (494.9)			"
			2,666,828.22	557.2 (966.8)			"

meters to grid →

1 FT. = 3048006 METER

COMPUTED BY: J. L. Harris

DATE 1/8/48

CHECKED BY: F. H. Elrod

DATE 1/9/48

M. 2388-12



MAP T-...8858..

PROJECT NO. Ph-2(45).

SCALE OF MAP.....1:10000

SCALE FACTOR

None

None

[illegible]

1 FT. = 3048006 METER

COMPUTED BY: J. L. Harris

DATE 1/8/48

CHECKED BY: F. H. Elrod

DATE 1/9/48

2300 12



MAP T-8859

PROJECT NO. Ph-2(45)

SCALE OF MAP 1:10000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR LONGITUDE OR y-COORDINATE OR x-COORDINATE	DISTANCE FROM GRID OR PROJECTION LINE 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)
POWER 1935	G-6760 USBR 1048	N.A. 1927	47 49 26.227	810.0 (1043.1)			Used in radial
WELLPOINT 1935	"	"	117 54 41.229	857.6 (390.4)			plot.
LITTLE FALLS EAST BASE 1935	"	"	47 50 13.033	402.5 (1450.6)			"
LITTLE FALLS WEST BASE 1935	"	"	117 57 14.032	291.8 (955.9)			"
MONDOVI II SS 1935	"	"	47 49 34.753	1073.3 (779.8)			"
SHALE I. S. 1935	"	"	117 56 12.597	262.0 (986.0)			"
	"	"	47 49 53.544	1653.7 (199.4)			"
	"	"	117 57 28.943	602.0 (645.9)			"
MONDOVI II SS 1935	G-6760 USBR 1071	"	47 48 19.012	587.2 (1265.9)			"
SHALE I. S. 1935	"	"	117 59 52.841	1099.5 (149.0)			"
	"	"	47 48 54.791	1692.2 (160.9)			"
I.S. PLANT 1935	"	"	118 01 07.026	146.2 (1102.1)			"
CP SRN 30 AP 433 1935	"	"	47 49 45.544	1406.6 (446.5)			"
	"	"	117 54 38.256	795.6 (452.3)			"
CP SRS 31 (1241+24.18) 1935	Field Comp.	"	307,375.10	723.9 (800.1)			Recovered not identified.
CP SRS 33 (1332+28.46) 1935	"	"	2,693,408.27	1038.8 (485.2)			"
CP SRN 28 AP 392 1935	"	"	304,421.98	1347.8 (176.2)			"
	"	"	2,689,632.70	1412.0 (112.0)			"
	"	"	310,778.70	237.3 (1286.7)			"
CP SRN 32 AP 1935	"	"	2,694,383.59	1336.1 (187.9)			"
	"	"	304,085.51	1245.3 (278.7)			"
	"	"	2,681,745.68	532.1 (991.9)			"
	"	"	314,007.52	1221.5 (302.5)			"
	"	"	2,695,089.16	27.2 (1496.8)			"

1 FT. = 3048006 METER

COMPUTED BY: J. L. Harris

DATE 1/8/48

CHECKED BY: F. H. Elrod

DATE 1/9/48

M-2388-12



[illegible]

1 FT. = 3048006 MICRONS

COMPILED BY: J. L. Harris

DATE 1/8/28

CHECKED BY: F. H. Elrod

DATE 1/9/48

M-2388-12



FIELD INSPECTION REPORT  
AREA OF THE THIRD RADIAL PLOT  
Project PH-2 (45)

1. Description of the Area:

The third radial plot consists of three shoreline surveys numbered 8857 to 8859 inclusive, and it includes the area of the Spokane River from near its mouth upstream to dam at Little Falls, Wn.

The topography on the south side of the river is quite similar to that found on the south side of the Franklin D. Roosevelt Lake between Grand Coulee and the mouth of the Spokane River. It is a rolling plateau underlain by basalt formations. The plateau overlooks the Spokane River canyon from an elevation of 1200 to 1300 feet. At the lower elevations, island outcrops of granite are found. Sandy benches of varying widths adjoin the river.

A broad sandy bench extends southeastward from the large bend in the river found in sheet 8857 to a point about 1.5 miles northwest of the large eastward meander at the junction of sheets 8858 and 8859. Along this east-west meander the plateau rises abruptly from the lake shore and is heavily incised by a lateral drainage pattern. On the south side of the river, the remainder of the area between this plateau and Little Falls, Wn., is characterized by sandy benches found between the river and the plateau to the south.

On the north side of the river a rolling topography is found consisting of sandy plains with an underlying structure of granite or shale which have outcropped in places. A large granitic intrusion has been cut through by the Spokane River in the Twin Buttes area (at the river bend in 8857) and steeply incised canyon walls are the result. Proceeding eastward the granitic terrain yields to a wide sandy bench which continues to the south limits of sheet 8857. This bench gives way to a rolling plateau, which rises steeply in many places from the shore of the river, with rock bluffs composed of granite or shale which are interrupted occasionally by sandy embankments. This terrain extends through 8858 and the west half of sheet 8859 except for a narrow elevated sand bench (Wyncoop Flats) found south of Cayuse Mountain. A large flat sandy bench marks the remainder of the area in sheet 8859.

The greater part of the area is covered with softwoods of varying density, and grasslands. The Spokane Indian Reservation extends along the entire north side of the Spokane River. Logging and grazing of cattle are the chief enterprises. A few scattered mining operations are found on the south side of the river as well as logging, cattle grazing and farming. The topography of the area as a whole is not conducive to the development of an agricultural economy.

The road system is very poorly developed. A graded and drained <sup>road</sup> provides access to the river from the south side at Laughbons Landing.

North of the river a graded and drained road leading south and then east from State Highway 22 just south of sheet 8861 cuts through sheet 8857 where it leaves the area and re-enters in sheet 8859 between Wellpinit and Little Falls. Aside from these two main roads, there are a few scattered roads (logging or dirt roads) that provide access to the river.

Little Falls, Wn., which is associated with a hydro-electric plant, is a small and only town in this radial plot area.

For additional information refer to the field inspection report for the area of the first radial plot under side heading 1, in the general description of the area.

2. Completeness of Field Inspection:

The field inspection for the clarification of details on the photographs, and for the classification 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, Area of the First Radial Plot, Project PH-2 (45)".

3. Interpretation of the Photographs:

Shale outcrops, which weather more readily than granite or basalt, give a gentle rounded appearance of mottled tones; the vegetal covering is usually grass in an area underlain by shale and for a typical example of such an area refer to the field photographs in the vicinity of Cayuse Mountain.

For additional information refer to the special report mentioned above.

4. Horizontal Control:

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

5. Vertical Control:

Idem

6. Contours and Drainage:

Idem

7. Shoreline Plane of Reference:

Idem

8. Low-Water Line:

Idem

9. Wharves and Shoreline Structure:

There were no wharves or shoreline structures in the area covered by this report.

10. Details Offshore from the Shoreline Plane of Reference:

In areas where the shoreline is rocky, submerged rocks and ledges are suspected. Any rocks found awash or bare have been noted on the photographs, and the height of rocks that bare above the plane of reference has been indicated. The approximate limits of shoal areas have been shown; they are found usually where the benches adjoin the lake or river.

A large prominent sand bar was found in the middle of the Spokane River near the junction line of sheets 8858 and 8859. A submerged rock was located, also, in the river about 1 mile downstream from the dam at Little Falls.

11. Landmarks and Aids to Navigation:

What few prominent and less prominent landmarks were found were recommended for future charting. There are no aids to navigation in the river.

12. Hydrographic Control:

Photo hydro stations were established in accordance with the instructions for this Project and as amended by the letter from the Acting Director dated 9 July 1947, on the subject of locating photo hydro stations.

Along several areas where steep wooded banks were encountered, no photo hydro stations were established since no definite detail was identifiable on the photographs. One such area was found along the south bank of the river near Little Falls, Wn. *photo hydro stations were designated and described briefly in the field photographs, and also listed in sketch book volume 8.*

13. Landing Fields and Aeronautical Aids:

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

14. Road Classification:

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

15. Bridges and Cable Crossings:

There were no bridges or cable crossings (submarine and overhead) across navigable waters found within the area.

16. Buildings and Structures:

A complete field investigation <sup>was made</sup> for any buildings or 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:

The original instructions relating to this phase of the work have been abrogated. Refer to the Acting Director's letter dated 7 November 1947, on the subject of the Lake Roosevelt reservation boundary.

18. Geographic Names:

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

21. Field Photographs:

Idem

22. Symbols and Color Scheme:

Idem

23. CP stations along the Reservoir Boundary:

Refer to this side heading of the "Field Inspection Report, Area of the Fourth Radial Plot, Project PH-2 (45)".

Approved by:

*J. T. Jarman*  
J. T. Jarman,  
Chief of Party

Respectfully submitted:

*Charles Hanavich*  
Charles Hanavich,  
Topographic Engineer



1

COMPILATION REPORT  
Map Manuscripts T-8857 to T-8859 Inclusive  
Area of the 3rd Radial Plot  
Project Ph-2(45)

26. Control:

Twenty horizontal control stations were recovered and identified by the field parties for use in controlling the radial plot in the area of these three map manuscripts. All of the objects selected for sub-stations could be identified with certainty on a majority of the photographs. The stations were well spaced over the area and were sufficient to control the radial plot.

8857	~ 6
8858	" 7
8859	" 7
	<hr/> 20

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 three map manuscripts is contained on several sheets of Form M-2388-12, which are attached to this descriptive report.

27. Radial Plot:

These three map manuscripts Nos. T-8857 to T-8859 inclusive, were combined into one radial plot known as Radial Plot No. 3, 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 First 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.

In the area of T-8859, the nine lens photograph coverage was not sufficient to accurately compile the planimetric details, especially at several points along the shoreline of the Spokane River, between Long.  $117^{\circ} 54'$  and Long.  $117^{\circ} 58'$ . In this area, the angle of intersection of the radials was so small that many planimetric pass points and photo hydrographic signals could not be located accurately. Investigation disclosed that the U. S. Engineer District Office at Portland had prints of single lens photographs of this area, flown on July 18, 1945, at a scale of 1:36000. Two of these prints were obtained numbered as follows:

347 W	16Pl	M 1	16 P S	18 July 1945	5 M	253
348 W	16Pl	M 1	16 P S	18 July 1945	5 M	253

By use of the vertical projector central portions of these prints were enlarged and radials were obtained which contributed to the accurate location of pass points, etc.. Because of errors usually found when an enlargement is made with the vertical projector, the planimetry and photo hydrographic signals in this part of the river, which is very narrow, are questionable. They are believed to be of sufficient accuracy for use during the hydrographic survey. This office has been requested to return the two single lens prints, previously listed, to the U. S. Engineer Office in Portland. Should the Washington Office desire prints of these two photographs they may be secured from negatives on file at the office of the "Chief of Staff, U. S. Air Force, Washington 25, D. C.

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 are 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, small interior areas near the limits of the map manuscripts could not be detailed.

Whenever possible the stereoscope was used 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 waterline and 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 map, which will be forwarded with the map manuscripts, was used to supplement the photographs:

Black and White Print:----Spokane Indian Reservation, Washington  
Scale:---1"= 1 mile

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

Black and White Print---Existing & 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 has been submitted.

The above field inspection report indicates that the water level of the Spokane River area of the Franklin D. Roosevelt Lake is 1290.0 ft. above M.S.L.. This is probably true for all water areas falling in T-8857 and in most of T-8858. There is however, a definite current in the Spokane River from the dam at Little Falls to a point about 7.0 miles downstream. By comparing the map manuscripts with maps that were compiled before the Coulee Dam was built, it can be seen that little additional water has been impounded in this area. It is suggested that the hydrographic party investigate the above facts and determine if there is a gradient in the Spokane River between the dam at Little Falls and a point several miles downstream.

*See Revised Report.*

The mean high-waterline (Lake shoreline at the adopted plane of reference) is shown by a continuous black acid ink line, .008" in thickness. 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 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:

Refer to Paragraph 10 of the Field Inspection Report.

\* *A profile of the reservoir water level, from Grand Coulee Dam to the International Boundary, is attached to the Descriptive Report for the Fifth Radial Plot (T-8863 to T-8865).*



33. Wharves and Shoreline Structures:

There were no wharves or shoreline structures in the area covered by this report.

34. Landmarks and Aids to Navigation:

Form 567, recommending the charting as landmarks of the following objects, is attached.

CHURCH (West Gable)	T-8857
STACK	T-8859

There are no fixed aids to navigation in this part of the river.

35. Hydrographic Control:

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

<u>Sheet No.</u>	<u>Signals pricked by Field Parties</u>	<u>Signals Rejected</u>	<u>Photo. Hydro. Signals Established</u>
8857	64	3	61
8858	49	3	46
8859	46	1	45

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 satisfactory positions. (The field party could not determine this point with alternate photographs.) Because of poor photograph placement or coverage, angles of intersection of the radials were often so small that the actual positions of photo hydro stations were questionable. It was also necessary to prick many signals on photographs where the banks were not displaced away from the water line and principal point. Because of these facts the photo hydro signals, in the area of these three map manuscripts, should not be considered as accurate as those which have been established over the remainder of this project. They are, however, believed to be of sufficient accuracy for use during the hydrographic survey. Refer to remarks, contained in this descriptive report, Item 28 "Detailing", concerning photo hydro stations in the area of T-8859.

A list of the photo hydrographic signals, shown on these three 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.

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 was submitted to the Washington Office by the field party. *Lists of approved names attached to this Desc' Rep't.*

38. Recoverable Topographic Stations:

Copies of Form 524 are being submitted for the two stations listed under Item 34 "Landmarks and Aids to Navigation. In addition Form 524 is being submitted for station "GAB, 1947". *Forms 524 filed in 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).

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

Area of 3rd Radiant Plot  
T-8857 to T-8859 Inc.

**TO BE CHARTED**

**STRIKE OUT ONE**

## LANDMARKS FOR CHARTS

Coulee Dam, Washington

October 1947

I recommend that the following objects which have ~~(been inspected)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(charts)~~ the charts indicated.

The positions given have been checked after listing. *Ward*

**J. T. Jarman & R. A. Earle**

Chief of Party.

[illegible]

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.

Hydrographic Signal Sites  
3rd Radial Plot  
Sheets 8857, 8858, 8859

5701	Southerly and easterly of 2 pines (not flagged)
5701A	White rag on bush
5701B	Red flag on pine
5702	Red signal clogh on tree on point
5703	Lone pine on sidehill
5704	Orange cloth on tree at log dump
5705	Orange signal cloth on pine
5706	Ball top pine near road
5707	White signal cloth on pine
5708	White signal cloth on tallest pine
5709	Red signal cloth on pine tree
5710	Red signal cloth on large pine
5711	Orange signal cloth on pine
5712	Orange signal cloth on pine in draw
5713	White cloth on small lone pine
5714	White signal cloth on pine
5715	Red signal cloth on pine
5716	Red signal cloth on small pine
5717	Orange signal cloth on pine
5718	Orange cloth on pine tree
5719	White cloth on pine
5720	White signal cloth on pine
5721	Red signal cloth on forked pine
5722	Red signal cloth on middle of 3 small pines



5723 Orange signal cloth on pine  
5724 Orange signal cloth on north and east pine of 2  
5725 D/S of double pine in draw  
5726 White signal cloth on pine  
5727 Lone pine (not flagged )  
5728 Orange cloth on small pine  
5729 SW corner of small shed  
5730 Prominent pine on top of rock  
5731 River gable of main portion of unpainted shack  
5733 White signal cloth on pine  
5734 Red signal cloth on fir  
5735 Red signal cloth on pine  
5736 Small bushy pine on offshore end of rock  
5737 Orange cloth on pine  
5739 U/S of 2 pines (not flagged)  
5740 White signal cloth on pine  
5741 White flag on stump of snag  
5742 Dead top pine  
5743 Red signal cloth on pine  
5745 Orange signal cloth on pine  
5746 Orange cloth on small pine  
5747 Blazed pine, E side of draw  
5748 White signal cloth on pine  
5749 Large snag on rock slide  
5750 NW gable of unpainted house  
5751 Orange cloth on pine

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5752 White signal cloth on pine near shack  
5753 White signal cloth on pine  
5755 Red signal cloth on tree  
5757 Lone pine (not flagged)  
5759 Lone pine S of forked pine  
5761 Orange cloth on pine  
5763 Orange cloth on pine  
5765 Red cloth on pine  
5767 White cloth on pine  
5769 White signal cloth on pine  
5771 White signal cloth on pine  
5803 Large forked pine (not flagged)  
5804 Red cloth on small pine  
5805 Dead tree in water  
5806 Orange cloth on pine  
5807 Red signal cloth on pine  
5809 Orange cloth on small pine  
5810 Red signal cloth on forked pine  
5811 White cloth on pine  
5812 White signal cloth on smallest pine  
5813 Red cloth on pine  
5814 Red signal cloth on pine  
5815 Blazed tree D/S of 2  
5816 Orange cloth on dead fir  
5817 Orange cloth on small pine  
5819 White cloth on small pine

415

5820 Snag on slide  
5821 Red cloth on pine  
5822 Point of rock on HWL at clay bank  
5823 Orange cloth on pine at HWL  
5824 White signal cloth on pine  
5825 White cloth on pine  
5826 Red cloth on pine  
5827 Red signal cloth on pine  
5828 Base of lone pine on point  
5829 White cloth on pine  
5830 White signal cloth on pine  
5831 Red signal cloth on pine  
5832 Red cloth on small pine  
5833 White cloth on pine  
5834 Orange cloth on dead fork top pine  
5836 White cloth on tall pine  
5837 Dead tree  
5838 Red cloth on D/S of double pine  
5839 White cloth on pine  
5840 Orange cloth on middle pine of 3  
5841 Red cloth on pine tree  
5842 Red signal cloth on small pine  
5843 Orange cloth on large pine  
5844 White cloth on small pine center of small clump  
5845 White signal cloth on lone pine  
5846 Orange cloth on pine in slide area

4/12

5847 Red signal cloth on tall pine  
5849 Large lone pine on point  
5851 Forked snag  
5853 White signal cloth tied on bush on point  
5855 Red cloth on pine  
5901 White signal cloth on dec. bush  
5902 Red cloth on small pine  
5903 Red signal cloth on bush  
5904 White cloth on pine  
5905 Orange cloth on lone bush  
5906 Orange cloth on dead pine  
5907 White signal cloth on tall pine  
5908 Red cloth on fir, 3 m from rock point  
5909 D/S gable of barn  
5909A Red signal cloth on pine  
5910 White cloth on pine  
5911 White cloth on pine  
5912 Orange cloth on small pine  
5913 Small pine on fence  
5914 Red signal cloth on small lone pine  
5915 Bushy pine in draw  
5917 Broken top snag  
5918 Red cloth on spindly pine  
5919 White cloth on pine  
5920 White cloth on pine  
5921 Lone schoolmarm pine

5922 Orange cloth on pine  
5923 Red cloth on pine at side of road  
5924 White signal cloth on pine  
5925 Snag (not flagged)  
5926 Red signal cloth on pine  
5927 White cloth on pine  
5928 Orange cloth on pine  
5929 Red signal cloth on dead pine  
5930 U/S gable of old house  
5931 White cloth on pine  
5932 Red cloth on small double pine  
5933 Red signal cloth on pine  
5935 White cloth on pine  
5937 Red signal cloth on lone pine  
5939 White cloth on pine  
5941 Red signal cloth on pine  
5943 Orange cloth on pine  
5945 Lone small bushy pine on slide bank  
5947 White cloth on pine  
5949 Orange cloth on leaning pine  
5951 White cloth on pine  
5953 Dead snag  
5955 Red cloth on pine  
5957 Small pine on rocky point

# GEOGRAPHIC NAMES

Survey No.

T-8857

Name on Survey

	A	B	C	D	E	F	G	H	K	
<u>Washington</u>									USGB	1
<u>Lincoln County</u>										2
<u>Stevens County</u>										3
<u>Spokane Indian Reservation</u>										4
<u>State No. 22</u>										5
<u>Spokane River</u>										6
<u>Franklin D. Roosevelt Lake</u>										7
<u>Marble Flats</u>										8
<u>Twin Buttes</u>										9
<u>Blue Creek</u>										10
<u>Sand Creek</u>										11
<u>Ferguson Creek</u>										12
<u>Orizady Creek</u>										13
<u>Samuels</u>										14
<u>Old Detillion Road</u>										15
<u>McCoy Lake</u>										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Spokane R. begins at Little Falls.  
(Deleted from map.)

(District not a fixed area of center of population)

The spelling of this name varies; this is form recommended by C & G S party's names report.

Names underlined in red are approved. 1/28/49 L. Heck.

# GEOGRAPHIC NAMES

Survey No.

T-8858

GEOGRAPHIC NAMES												
Survey No.												
T-8858												
Name on Survey												
		A	B	C	D	E	F	G	H	K		
Washington										USGB	1	
Lincoln County											2	
Stevens County											3	
Spokane Indian Reservation											4	
Franklin D. Roosevelt Lake										USGB	5	
Spokane River			Spokane River Begins at Little Falls (Deleted from map)									6
State High No. 22											7	
											8	
Pitney Creek											9	
Laughlons Landing											10	
Sand Flats											11	
Egypt			(district, rather than a fixed center of population)									12
North Star Grange Hall											13	
Heartline Canyon											14	
The Slide											15	
Charlie Fleet Canyon											16	
											17	
Pitney Butte			Field Party's Names Report lists this as prominent, about 2/5 miles N. of Egypt district.									18
											19	
											20	
						Names underlined in red are approved. 2/2/49 L. Heck.					21	
											22	
											23	
											24	
											25	
											26	
											27	

Names underlined in red are approved. 2/2/49 L. Heck.

# GEOGRAPHIC NAMES

Survey No.

T-8859

GEOGRAPHIC NAMES										
Survey No. T-8859										
Name on Survey										
	A	B	C	D	E	F	G	H	K	
Washington									USGB	1
Lincoln County										2
Stevens County										3
Spokane Indian Reservation										4
Franklin D. Roosevelt Lake									USGB	5
Squaw Canyon										6
Spring Creek										7
Little Falls		(town)								8
Spokane River		(above Little Falls)								9
Flett Creek										10
Wynecoop Flats										11
Cayuse Mountain										12
										13
										14
Names underlined in red are approved. 2/11/49 I. Heck										15
										16
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										26
										27

M 234



T-8857

The schedule on T-8857 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<sup>(field number)</sup> which was subsequently destroyed

IMZ 6-1-50

DIVISION OF PHOTOGRAMMETRY  
Review Report of  
Shoreline Map Manuscripts T-8857-T-8859  
(area of the Third Radial Plot, Ph-2(45))

Subject numbers not used in this review report have been adequately covered in other parts of the descriptive report.

26 Control

All second-order triangulation stations had been adjusted from Grand Coulee Dam Grid Values to Lambert Projection values (N.A. 1927 datum); and all third-order triangulation stations (the CP series) had been adjusted from the same Grid to the Washington North Zone plane coordinate values.

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

The following stations were added to the map manuscripts during review:

<u>T-8857</u>	<u>T-8858</u>	
Joyce (USBR) 1935	Blaze (USBR) 1935	Cayuse (USBR) 1935
Blackie " "	Lost " "	Canyon " "
Detillian " "	Tubbs I.S." "	Chief " "
Big Spring " "	Slide I.S." "	Ledge " "
Huey " "	Slope I.S." "	Little Falls " "
Short " "		Spur I.S. " "
Pitney " "		Bench S.S. " "
Camp I.S. " "		Pit I.S. " "
		Sand S.S. " "
		Mondovi " 1934

The spelling of station Detillian has been retained as listed by Geodesy (G.P. p. 1046) although it is in disagreement with the spelling of the road name appearing on the same map, and with the bridge name and the triangulation station name appearing on Plate II of U.S.G.S. Water-Supply Paper 377, 1915.

28 Detailing

The maps meet the required accuracy with respect to shoreline after the changes noted below were made. The inland detail is, in general, good.

T-8857; Minor changes in shoreline

A road was entirely re-drawn in the southeastern portion of the map manuscript.

T-8858; Minor changes in shoreline

A road No. 7 was re-drawn to make it a road No. 6, in agreement with field inspection notes.

T-8859: The cliffs on the north side of the lake, opposite Squaw Canyon, are formed in tilted stratified sedimentary rocks, while those on the south side are formed in basaltic flows. The cliffs in the sedimentaries were re-delineated in order to show their distinctive character.

### 37 Geographic Names

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

The name "Spokane River" has been deleted from the map manuscripts, (except on the part lying west of Little Falls, T-8859), and the name "Franklin D. Roosevelt Lake" substituted.

Names added during review:

T-8858: Heartline Canyon  
Charlie Fleet Canyon  
The Slide

T-8859: Spring Creek

### 42 Supplemental Data

Plates II and III of U.S.G.S. Water-Supply Paper 377, 1915; 7 pp., 10 pl. Profile Surveys in Spokane River basin, Wash., and John Day River basin, Ore. R. B. Marshall, chief geographer.

These maps give the plan and 7 profiles of the Spokane River. They have contours, numerous river elevations, and a second-order triangulation net. By consulting the bank elevations on these maps and on the U.S.G.S. Wellpinit quadrangle made prior to the river impounding, and comparing them with the bank conditions on survey T-8859, it is possible to deduce an approximate position for the 1290' elevation ("Level of Lake") of the river after impounding. (A note to this effect has been placed on the map manuscript.) Though the water must have been raised at least 20 feet, the width of the river is little affected because of the steep side walls.

Plate III shows an island in the loop of the river at 47° 50' / 117° 59' (no elevation given), but it does not appear on the present map manuscript, and no indication of its presence is discernible on the photographs.

### 43 Comparison with Previous Topo and Present Hydro Surveys

There are no earlier topographic surveys, and the hydrographic survey is in process.

4. Comparison with Existing Quadrangles

U.S.G.S.	Wellpoint	1/62,500	ed 1944
U.S.E.	Davenport	1/125,000	rep. 1939 (no contours)

The present survey supersedes the above surveys for shoreline and roads in their common areas..

Reviewed by:

Lena T. Stevens  
Lena T. Stevens  
T-8857, 28 Jan. 1949  
T-8858, 2 Feb. 1949  
T-8859, 11 Feb. 1949

Approved by:

L. V. Griffith  
Chief, Review Section *L.V.M.*

H. R. Edmonston  
Chief, Nautical Chart Branch,  
Division of Charts

O. S. Reading  
Chief, Division of Photogrammetry

W. M. Seifer  
Chief, Division of Coastal Surveys  
*W.M.*