8863 8864

8865

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-8863, T-8864 &T-8865

LOCALITY

State: Washington

General locality: F.D.Roosevelt Lake

Locality: From West Bissell Flats to 1.5 miles north of Rickey Point

1946-'47

CHIEF OF PARTY

J.T.Jarman

LIBRARY & ARCHIVES

DATE: November 10, 1949

B-1870-1 (1)

8863 8864 8865

Form T-1

DATA RECORD

T-8863

Quadrangle (II): Bissell, Wash. (USE) 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 5/15/47 Copy filed in ~~Descriptive Report No. T-~~ ~~(VI)~~ Division of Photogrammetry Office Files

Completed survey received in office: 9 April, 1948

Reported to Nautical Chart Section: 16 April, 1948

Reviewed: 9 March 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 = Normal Pool Elevation, 1290' above (USBR, 1937) 1288.5± USCEGS, 1927

Reference Station (III): ELBURN (USBR) 1936 r 1947

Lat.: 48° 19' 18.665" (576.5m) Long.: 118° 08' 38.357" (790.2m) Adjusted x Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 2,604,189.39' Y = 493,607.18'

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water Level ~~Stage-of-Tide~~
9 lens				
17522 to 17524	8/22/46	13:21 P.S.T.	1:10000	1289.65 above M.S.L.
17631 to 17634	8/27/46	9:44 P.S.T.	1:10000	1289.61 above M.S.L.
U.S.Army				
Single lens				
13-6 to 18-6 Inc.	1944	Unknown	1:20000	Unknown
38-7 to 41-7 Inc.	1944	Unknown	1:20000	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: Sept. 1947

" " " checked by: Washington Office date: Sept. 1947

Control plotted by: James L. Harris date: Nov. 26, 1947

Control checked by: Frank Elrod date: Nov. 26, 1947

Radial Plot by: J. L. Harris & J. E. Deal date: Dec. 10, 1947

Detailed by: Helen Letson date: Jan. 30, 1948

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

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): 28.2 statute miles

Shoreline (Less than 200 meters to opposite shore): 2.0 statute miles

Number of Recoverable Topographic Stations established: 3

Number of Temporary Hydrographic Stations located by radial plot: 51

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: 9-5-47 to 11-17-47
C. Hanavich, J. C. Lajoye, J. H. Winniford

Shoreline Inspection: 10-17-47 to 10-20-47
J. C. Lajoye, J. H. Winniford, R. W. Sherwood

Interior Field Inspection and Geographic names: 8-27-47 to 11-18-47
J. H. Winniford

Recovery of vertical control: 8-4-47 to 10-15-47
C. Hanavich

Note: This report contains bridges & cable-crossing data for the Sixth & the Seventh Radial Plots.

Form T-1

DATA RECORD

T- 8864

Quadrangle (II): Bissell, Wash. (USE) 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 5/15/47 Copy filed in ~~Descriptive Report No. T- (VI)~~ Division of Photogrammetry Office Files

Completed survey received in office: 9 April, 1948

Reported to Nautical Chart Section: 14 April, 1948

Reviewed: 15 Mar. 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, 1933) Normal Pool Elevation, 1290' above 1288.5 ± USC&GS, 1927

Reference Station (III): RIM (USBR) 1935 & r 1947

Lat.: 48° 24' 33.513" (1035.2m) Long.: 118° 10' 10.610" (218.2m) Adjusted x Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 2,644,854.28' Y = 525,276.05'

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water Level
9 lens				
17525 to 17528 Inc.	8/22/46	13:23 PST	1:10000	1289.65 above M.S.L.
17634 to 17638 Inc.	8/27/46	9:48 PST	1:10000	1289.61 above M.S.D.
U.S.Army Single lens				
33-4	1944	Unknown	1:20000	Unknown
19-6,20-6 & 24-6	1944	Unknown	1:20000	Unknown
30-7 to 37-7 Inc.	1944	Unknown	1:20000	Unknown
99-7 to 103-7 Inc.	1944	Unknown	1:20000	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: Sept. 1947

" " " checked by: Washington Office date: Sept. 1947

Control plotted by: F. Elrod date: Nov. 28, 1947

Control checked by: J. L. Harris date: Nov. 28, 1947

Radial Plot by: J. L. Harris & J. E. Deal date: Dec. 10, 1947

Detailed by: Roy A. Davidson date: Jan. 30, 1948

Reviewed in compilation office by: Ree H. Barron date: Feb. 18, 1948

Elevations on Field Edit Sheet
checked by: None date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 31.1 (Complete detail along shoreline) (Skeleton detail interior)

Shoreline (More than 200 meters to opposite shore): 16.0 statute miles

Shoreline (Less than 200 meters to opposite shore): 0.5 statute mile

Number of Recoverable Topographic Stations established: 3

Number of Temporary Hydrographic Stations located by radial plot: 37

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: 9-5-47 to 11-16-47
C. Hanavich, J.C.Lajoye, J.H.Winniford

Shoreline Inspection: 10-15-47 to 10- 17-47
J.C.Lajoye, J.H.Winniford, R.W.Sherwood

Interior Field Inspection and Geographic Names: 11-13-47 to 11-18-47
J.H.Winniford

Recovery of vertical control: 8-4-47 to 10-15-47
C.Hanavich

JWP

Form T-1

DATA RECORD

T- 8865

Quadrangle (II): Bissell, Wash. (USE)
Marcus, 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
5/15/47

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

Completed survey received in office: 9 April, 1948

Reported to Nautical Chart Section: 16 April, 1948

Reviewed: 18 Mar. 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 1943) 1288.5 ± USCEGS, 1927

Reference Station (III): RICKEY S.S. (USBR) 1936 r 1947

Lat.: 48° 32' 29.881" (923.0m) Long.: 118° 07' 09.757" (200.1m) Adjusted x
Unadjusted

State Plane Coordinates (VI): Washington, North Zone

X = 2,657,346.64' Y = 573,945.94'

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Water Level
9 lens				
17529 to 17533 Inc.	8/22/46	13:26 PST	1:10000	1289.65 above M.S.L.
17639 to 17641 Inc.	8/27/46	9:51 PST	1:10000	1289.61 above M.S.L.
17648 to 17650 Inc.	8/27/46	10:11 PST	1:10000	1289.61 above M.S.L.
U.S.Army Single Lens				
25-6 to 31-6 Inc.	1944	Unknown	1:20000	Unknown
53-6 to 56-6 Inc.	1944	Unknown	1:20000	Unknown
26-7 to 29-7 Inc.	1944	Unknown	1:20000	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: Nov. 1947

" " " checked by: Washington Office date: Nov. 1947

Control plotted by: J.L.Harris date: Dec. 1, 1947

Control checked by: F. Elrod date: Dec. 2, 1947

Radial Plot by: J. L. Harris & J. E. Deal date: Dec. 10 ,1947

Detailed by: C. C. Wiebe date: Feb. 17, 1948

Reviewed in compilation office by: Ree H. Barron date: March 5, 1948

Elevations on Field Edit Sheet
checked by: None date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 30.3 (Complete detail along shoreline) (Skeleton detail interior)

Shoreline (More than 200 meters to opposite shore): 19.5 statute miles

Shoreline (Less than 200 meters to opposite shore): 0.8 statute mile

Number of Recoverable Topographic Stations established: 2

Number of Temporary Hydrographic Stations located by radial plot: 51

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: 9/8/47 to 10/3/47
C. Hanavich, J.C.Lajoye and J.H.Winniford

Shoreline Inspection: 10/1/47 to 10/3/47
J.C.Lajoye, J.H.Winniford, R.W.Sherwood

Interior field inspection & geographic names: 11/7/47 to 11/13/47
J.H.Winniford

Recovery of vertical control: 8/4/47 to 10/15/47
C. Hanavich

MAP T-8863 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)
INCHELIUM C.P. 1936 r.1947	G-6760 → 1034	N. A. 1927	48° - 17′ - 01.024″ 118° - 12′ - 16.274	31.6 (1821.6) 335.5 (901.5)			Used in radial plot
HALL, (USBR) 1936 r.1947	G-6760 1052	"	48° - 19′ - 43.628 118° - 12′ - 05.086	1347.6 (505.7) 104.8 (1131.1)			"
ELBURN (USBR) 1936 r.1947	G-6760 1052	"	48° - 19′ - 18.665 118° - 08′ - 38.357	576.5 (1276.8) 790.2 (445.9)			"
MULLEN S.S.(USBR) 1936 r.1947	G-6760 1074	"	48° - 16′ - 26.269 118° - 09′ - 31.905	811.4 (1041.9) 657.9 (579.3)			"
KNOB (USBR) 1936 r.1947	G-6760 1053	"	48° - 20′ - 37.112 118° - 09′ - 08.256	1146.3 (707.0) 170.0 (1065.5)			"
CP 169 UR 6164+90.88) 1936 r.1947	Field Comp.	"	483,837.95 2,654,507.89	1169.8 (354.2) 1374.0 (150.0)			"
CP 124 UL 4261+37.25 1936	"	"	476,858.04 2,652,502.16	566.3 (957.7) 762.7 (761.3)			No report, plotted at request of hydro party
CP 126 UL 4334+13.80 1936	"	"	482,811.79 2,649,110.78	857.0 (667.0) 1253.0 (271.0)			"
CP 128 UL 4405+59.40 1936	"	"	487,815.26 2,645,912.00	858.1 (665.9) 278.0 (1246.0)			"
CP 171 UR 6261+26.83 1936	"	"	488,798.54 2,653,212.04	1157.8 (366.2) 979.0 (545.0)			Recovered, not identified
CP 167 UR 6049+17.00 1936	"	"	473,990.62 2,657,824.17	1216.3 (307.7) 860.8 (663.2)			No report, plotted at request of hydro party
CP 130 UL 4554+16.50 1936	"	"	489,141.07 2,644,474.17	1262.2 (261.8) 1363.7 (160.3)			"

G-7380 (Library & Archives) 444 672 1947

Meters to grid

1 FT. = .3048006 METER

COMPUTED BY: J.E.DEAL DATE 11/21/47 CHECKED BY: R.A.DAVIDSON DATE 11/21/47

M-2388-12

MAP T- 8863 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)
CP 134			504,943.84	1506.9 (17.1)			No report, plot-
UL 4750+50.10	Field	N. A.					ted at request of
1936	Comp.	1927	2,642,474.02	754.1 (769.9)			hydro party
CP 177			508,986.42	1215.1 (308.9)			"
UR 6496+31.77)	"	"					
1936			2,649,058.97	1237.2 (286.8)			
CP 173			495,508.24	154.9 (1369.1)			"
UR 6336+36.53	"	"					
1936			2,652,121.61	646.7 (877.3)			
CP 132			497,063.13	628.8 (895.2)			"
UL 4655+71.42	"	"					
1936			2,643,206.17	977.2 (546.8)			
CP 175			502,153.31	656.3 (867.7)			Recovered, not
UR 6416+05.45	"	"					
1936			2,649,859.75	1481.3 (42.7)			identified

1 FT. = .3048006 METER

COMPUTED BY: J.E.DEAL DATE 11/21/47 CHECKED BY: R.A.DAVIDSON DATE 11/21/47

M-2388-12

MAP T- 8864 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)
RIM r.1947 (USBR) 1936 G.P. p. 1053	G-6760	N.A. 1927	48° 24' 33.513	1035.2	(818.1)				Used in radial	
			118 10 10.610	218.2	(1015.8)				plot	
ROSE r.1947 (USBR) 1936	G-6760 1053	"	48 26 04.386	135.5	(1717.8)				"	
			118 10 25.961	533.6	(699.7)					
ROAD r.1947 (USGS) 1946	USGS Form 9-107a	"	48 22 22.91	707.6	(1145.7)				"	
			118 11 45.37	933.8	(301.1)					
CP 138 (UL 5039-19.75) 1936 r.1947	Field Comp.	"	522,448.11	746.2	(777.8)				"	
			2,638,141.83	957.6	(566.4)					
CP181 (UR 6619-06.76) 1936 r.1947	"	"	520,427.54	130.3	(1393.7)				"	
			2,646,059.13	322.8	(1201.2)					
CP 189 (UR 6861-26.77) 1936 r.1947	"	"	538,204.86	976.8	(547.1)				Recovered, ~~plotted at request of hydro party~~	
			2,639,622.12	1408.8	(115.2)					
CP 191 (UR 6915-08.06) 1936	"	"	542,060.14	627.9	(896.1)				Recovered	
			2,639,738.70	1444.4	(79.6)					
CP 136 (UL 4868-75.30) 1936	"	"	512,766.12	843.1	(680.9)				Plotted at request	
			2,641,516.57	462.3	(1061.7				of hydro party	
CP140 (UL 5101-02.62) 1936 r.1947	"	"	527,524.77	769.5	(754.5)				Recovered	
			2,636,020.46	311.0	(1213.0)					
CP144 (UL 5273-81.87 1936	"	"	542,151.58	655.8	(868.2)				Plotted at request	
			2,634,214.99	1284.7	(239.3)				of hydro party	
CP 142 (UL 5191-77.25) 1936	"	"	534,398.68	1340.7	(183.3)				"	
			2,634,199.76	1280.1	(243.9)					
	944 G72 1944 G-7880 Library & Archives									

Meters to grid

1 FT. = .3048006 METER

COMPUTED BY: J.L.Harris DATE 11/25/47 CHECKED BY: R.A.Davidson DATE 11/26/47

M-2388-12

MAP T-8864 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 179			514,324.55	1318.1	(205.9)				Recovered	
(UR 6552-50.26) 1936 (1947)	Field Comp.	N. A. 1927	2,647,776.72	846.3	(677.7)					
CP 183			525,675.63	205.9	(1318.1)				Plotted at request	
(UR 6674-84.75) 1936	"	"	2,644,653.75	1418.5	(105.5)				of Hydro Party	
CP 185			530,605.28	184.5	(1339.5)				"	
(UR 6726-52.25)	"	"	2,643,701.13	1128.1	(395.9)					
CP 187			533,096.98	944.0	(580.0)				"	
(UR 6784-18.35)	"	"	2,639,978.05	1517.3	(6.7)					
BARNABY			48° 26' 38.710"	1195.7	(657.6)				Recovered	
(USBR) 1936 (1947)	G-6760 1053	"	118° 13' 33.668"	691.9	(541.2)					

1 FT. = .3048006 METER

COMPUTED BY: R.A.Davidson DATE 1/28/48 CHECKED BY: J.L.Harris DATE 1/30/48

M-2388-12

MAP T- 8865 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)
BROWN (USBR)	G-6760	N. A.	48 33 37.388	1154.9	(698.5)				Used in radial	
1936 r 1947 G.P.	1054	1927	118 09 23.746	486.9	(743.4)				plot	
DUTCH (USBR)	G-6760	"	48 32 29.294 (5)	904.9	(948.4)				"	
1936 r 1947	1054		118 11 04.482	91.9	(1138.8)					
WHITE (USBR)	G-6760	"	48 29 31.176	963.0	(890.3)				"	
1936 r 1947	1054		118 09 24.994	513.2	(718.7)					
RICKEY (USBR)	G-6760	"	48 32 29.881	923.0	(930.3)				"	
S.S. 1936 r 1947	1075		118 07 09.757	200.1	(1030.6)					
ROY (USBR)	G-6760	"	48 33 51.751	1598.5	(254.8)				"	
1936 r 1947	1054		118 06 28.304	580.3	(649.9)					
GOAT (USBR)	G-6760	"	48 28 26.470	817.6	(1035.7)				Recovered, not	
1936	1054		118 12 51.400	1055.7	(176.6)				identified	
FOSTER (USBR)	G-6760	"	48 30 27.133	838.1	(1015.2)				Used in radial	
1936 r 1947	1054		118 11 56.232	1154.2	(77.3)				plot	
CP 150 (UL 5489-92.29)	Field	"	558,991.16	1216.5	(307.5)	meters to grid			"	
1936 r 1947	Comp.		2,641,472.08	448.7	(1075.3)					
CP 199 (UR 7243-86.23)	" G-7380 Library & Archives	"	567,614.99	797.0	(727.0)				"	
1936 r 1947			2,653,262.79	994.5	(529.5)					
CP 197 (UR 7158-33.64)	"	"	560,383.79	117.0	(1407.0)				Recovered not	
1936			2,649,164.58	1269.4	(254.6)				identified	
CP 146 (UL 5344-55.12)	"	"	548,748.90	1142.7	(381.3)				Used in radial	
1936 r 1947			2,636,092.01	332.8	(1191.2)				plot	
CP 205 (UR 7419-78.83	" 444 GTZ 1947	"	578,488.67	1063.3	(460.7)				"	
1936 r 1947			2,655,040.40	12.3	(1511.7)					

1 FT. = .3048006 METER

COMPUTED BY: J.L.Harris DATE 11/25/47 CHECKED BY: R.A.Davidson DATE 11/26/47

M-2388-12

MAP T- 8865 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)
RICE (C&GS) 1936	G-6760	N. A. 1927	48° 28' 46.939	1449.9	(403.4)				Recovered not	
			118 08 30.514	626.7	(605.6)				identified	
CP 152 (UL 5552-36.52) 1936	Field Comp.	"	565,043.72	13.3	(1510.7)				Not recovered plotted at request	
			2,641,895.66	577.8	(946.2)				of hydro party	
CP 154 (UL 5614-85.82) 1936	"	"	569,040.99	1231.7	(292.3)				Recovered not	
			2,645,026.42	8.1	(1515.9)				identified	
CP 156 (UL 5732-80.78) 1936	"	"	571,075.30	327.8	(1196.2)				"	
			2,647,160.03	658.4	(865.6)					
CP 158 (UL 5810-82.21) 1936	"	"	577,310.10	704.1	(819.9)				"	
			2,649,423.69	1348.3	(175.7)					
CP 160 (UL 5860-98.48) 1936	"	"	581,224.74	373.3	(1150.7)				"	
			2,649,777.64	1456.2	(67.8)					
CP 193 (UR 6981-80.93) 1936	"	"	547,441.62	744.2	(779.8)				Not recovered plotted at request	
			2,640,748.97	228.3	(1295.7				of hydro party	
CP 195 (UR 7087-33.44) 1936	"	"	554,482.31	1366.2	(157.8)				"	
			2,646,925.90	587.0	(937.0)					
CP 203 (UR 7344-61.84) 1936	"	"	572,977.31	907.5	(616.5)				Lost, plotted at request of hydro party	
			2,653,082.60	939.6	(584.4)					

1 FT. = .3048006 METER

COMPUTED BY: J.L.Harris DATE 11/25/47 CHECKED BY: R.A.Davidson DATE 11/26/47

M-2388.12

FIELD INSPECTION REPORT
Area of the Fifth, Sixth and Seventh Radial Plots
Project PH-2 (45)

1. Description of the Area:

In view of the general similarity in the topography and culture found in the areas of the fifth, sixth and seventh radial plots, a combined report will be submitted. These radial plots ~~are comprised of~~ include the following 10 shoreline surveys:

Fifth Radial Plot: 8863 to 8865 inclusive
Sixth " " : 8866 to 8869 "
Seventh " " : 8870 to 8872 "

A General Description of the Area:

The area covered by this report includes the Franklin D. Roosevelt Lake from the small towns of Gifford and Inchelium in sheet 8863 to the International Boundary, and the Kettle River from its mouth upstream to Barstow, Wn.

Rugged, timber covered mountains are found on both sides of the lake as it meanders through a canyon; the same can be said of the Kettle River. Logged-off stretches are found occasionally. Narrow to wide grass and timber benches adjoin the lake on each side throughout most of this area. From Evans, about 8 miles north of Kettle Falls, to Northport, the reservoir narrows down to about 0.3 mile in width. From Northport to the northern limits of the Project, it narrows again to 0.2 mile and less.

In general, the rock formations are of the metamorphic type and are found in the following categories: slate, schist, and marble (limestone and dolomite).

The drainage is, as a rule, heavily incised and the greater part of it is perennial. There are many creeks or streams in the area. The principle tributaries of the lake are the Kettle and Colville Rivers.

The vegetation in the area consists of native grasslands and two types of wooded areas which are: 1) The yellow pine that is found in the southern part of the area. 2) And the Canadian type of tamarack (larch), fir, etc.

Between the small settlement of ~~Evans~~ Bossburg and the International Boundary, a definite current is found which increases as the boundary line is approached. Exposed rocks, gravel bars, eddies and small whirlpools were noticed upstream from Northport to the Canadian line. The current in the vicinity of the Little Dalles, just north of the abandoned settlement of Marble and about 6 miles southwest of Northport, is less than in the 10-mile stretch south of the boundary line. The Little Dalles is a bottle-neck in the lake and was a well-known rapids area before the waters in the lake were impounded.

It was ascertained from the immigration officer at Northport that during the Spring and early Summer months, the river or lake is a torrent in its upper reaches and does not taper off until within a few miles north of Kettle Falls. Two crests are encountered. The first crest occurs around the first of June when the run-offs from the southern tributaries take place. The second crest takes place around the first of July and is attributed to the northern tributaries, high mountain snows, et cetera, in British Columbia. In view of this, the Lake in this area does not reach its normal or approximate level until the latter part of July. And it is not until about this time that boat operations are feasible in this vicinity.

Two automatic recording gages housed in small concrete structures and maintained by the USGS are found on the southeast side of the river or lake; they are about 0.3 mile and 3 miles south of the International Boundary.

There are only a few roads in the vicinity. A macadam road (State Highway 22) extends along the east and southeast side of the lake as far north as Northport; at Northport it crosses the lake and continues northward out of the area. A gravel and dirt road (State Highway 22A) follows the southeast side of the lake from Northport to the Canadian line. There are no other graded roads on the west side of the lake in sheet 8872 except for a few lateral logging roads that extend into the area. One other major highway (US 395) parallels the Kettle River on the west side; it crosses the lake in sheet 8866 and runs eastward through Kettle Falls. A graded and drained road parallels the east side of the Kettle River, then swings eastward at its mouth and follows the west and northwest side of the lake proper to Northport. From the Kettle Falls Bridge a drained and graded road follows the west side of the lake southward to Inchelium. The Great Northern Railroad runs from Kettle Falls to the International Boundary along the east and southeast side of the lake, and is the only railroad line in the area.

Of the several small towns in the area, Kettle Falls and Northport are the chief ones; they are small trading centers.

T-8863
T-8864
T-8865

The Fifth Radial Plot:

On the east side of the lake in the area adjacent to and south of Gifford, a sloping sedimentary bench fronts the lake. Inland of this bench is a rugged mountain terrain that extends in a general North-South direction from the Colville River to Hunters, Wn. Steep slopes rising abruptly from the shoreline are found between Gifford and Daisy. T-8863 North of the small town of Daisy, a broad sedimentary bench (the small T-8864 settlement of Rice is located on it) extends northward to a point about opposite the mouth of La Fleur Creek. From this point to Rickey Creek T-8865 , steep slopes are found along the lake. North of the latter creek, the mountain slopes are replaced by a low sand bench that extends to the north limits of this plot.

The town of Inchelium on the west side of the lake is located on a T-8863 clay or sand bench that varies widely in width and reaches northward

almost to Barnaby Creek. Between this point and Martin Creek, steep mountain slopes adjoin the lake. From Martin Creek to the north edge of this plot the lake confronts a sand bench.

T-8866
T-8867
T-8868
T-8869

The Sixth Radial Plot:

The slopes of Mingo Mountain (on the east side of the lake) rise rapidly south of the mouth of the Colville River and east of the sand bench that borders the lake. North of the Colville River is a wide sand bench on which the town of Kettle Falls is located. Except for a narrow bench along the lake in the vicinity of Marcus, steep mountain slopes are found along the lake between Kettle Falls and just south of Powell Landing. A sand bench fronts the lake from this latter point to about a mile northwest of the settlement of Bossburg. This in turn gives way to steep rocky slopes which continue to a point directly east of Glasco Lakes. From here to about 0.5 mile south of where the lake meanders sharply to the east, a low, partially flooded bench is found along the lake with erosion banks ranging from 5 to 10 feet in height down to where there are no banks at all. North of this low flat bench rises another sand bench about 125 to 150 feet above the level of the lake; it continues to a point about opposite the mouth of Flat Creek. North of here steep limestone slopes rise from the shore and continue to the north limits of this plot.

The topography on the west side is almost identical with that found on the east side. Steep mountain slopes of slate or granite rise from the water with sand benches of varying elevation occasionally found lying on these slopes. The same applies in defining the topography along the Kettle River.

The pool characteristics in the Kettle River extend as far north as the Napoleon District. Upstream from this point it becomes a fast flowing mountain river with numerous gravel bars and erosion banks from 15 to 20 feet high. Rock bluffs are found occasionally.

T-8870
T-8871
T-8872

The Seventh Radial Plot:

A series of sand benches that vary in width and elevation extend upstream as far as the Little Dalles along the east and southeast side of the lake. In places, limestone outcrops break up this pattern. The Little Dalles was formerly the site of some rapids in the old Columbia River; the impounded waters have just about eliminated them. North of the Little Dalles one finds steep slopes, which are underlain by limestone, extending to about one mile southwest of the town of Northport. This town is located on a large sand bench about 40 feet above the lake level. Between Northport and the International Boundary (the north limits of the Project), small sand benches alternate with steep and rugged mountain slopes which rise from the water's edge.

Topographically, the area along the northwest side of the lake is similar.

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:

Refer to this side heading of the field inspection reports for the first, third and fourth radial plots on this Project.

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:

No contouring is involved in the area.

Major drainage was located and classified in the field concurrently with the geographic names investigation. The drainage in general is perennial although some of the streams do become intermittent or disappear on encountering the sand benches that front the lake.

For additional information see side heading 2, paragraph 2, of the field inspection report for the first radial plot area.

7. Shoreline Plane of Reference:

The shoreline inspection was accomplished between the Little Dalles and the International Boundary, where a river gradient is in effect, during the month of October. The shoreline was found to be in close agreement with that found on the 9-lens photographs which were taken during the month of August in 1946. A photostatic copy of the reservoir profile is attached to the back of this report, and it is believed that the profile indicates closely the normal pool and river gradient characteristics between the Grand Coulee Dam and the International Boundary. For additional information refer to the general description of the area under side heading 1 of this report, and to the Special Report on Vertical Control, PH-2 (45).

In addition, refer to this side heading under the first five paragraphs of the "Field Inspection Report, Area of the First Radial Plot, ..."; the remaining paragraphs under this side heading on the subject Of U.S. Army single lens photographs (1:20,000) is not applicable to sheets 8869 to 8872 , inasmuch, as these single lens photographs were not available for this area.

8. Low-Water Line:

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

9. Wharves and Shoreline Structures:

Two adjustable ramps are located in sheet 8863 - one at Gifford, the other at Inchelium. These ramps are not fixed and can be adjusted to fit the Gifford-Inchelium Ferry in the event the lake rises or falls. A railroad loading trestle is located on the property of the Lafferty Transportation Company in sheet 8866. Similar ferry ramps were found at the temporary ferry crossing at Northport.

No wharves or other shoreline structures were found.

10. Details Offshore from the Shoreline Plane of Reference:

An abandoned gold dredge at Northport and other natural features such as rocks, gravel bars, small islands, shoal areas, etc., have been noted on the photographs. In areas where the shoreline is rocky, submerged rocks and ledges are suspected. Any rocks awash have been noted. The height of rocks that bare above the plane of reference has been indicated. The approximate limits of shoal areas have been shown and they are usually found where the benches adjoin the lake.

11. Landmarks and Aids to Navigation: (see P 39, Compilation Report)

A selection of prominent and less prominent objects along the shore was made and these were recommended for future charting.

A complete investigation of all fixed aids to navigation was made in the field. They were either identified directly on the phtographs or by instrumental methods. Their correct names were verified from the latest edition of the Light List. No discrepancies were found in the Light List with regard to their distinctive markings, etc.

Topographic stations established by instrumental methods consisted of three-point fixes using a theodolite or transit, with a check angle, 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 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 densely wooded banks were encountered, no photo hydro stations were established since no definite detail was identifiable on the photographs.

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 sketchbook volumes 5 (fifth radial plot), 6 (sixth radial plot) and 7 (seventh radial plot).

13. Landing Fields and Aeronautical Aids:

There are no landing fields. One aeronautical aid was recommended for charting; it is LOOKOUT HOUSE, Swede Pass.

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 are several bridges and cable crossings in the area. They are:

Bridges:-

1 T-8866

Name: Kettle Falls Bridge
Location: 3 miles west of Kettle Falls, Wn.
Owner: Washington State Highway Commission
Kind: Fixed
Number of Spans: 1
Channel Span: Horizontal Clearance - 301.0 feet
Vertical Clearance of lowest part above lake - 62.6 feet

Date of Field Measurements: 12:30 PM, 11/16/47
Lake level at Dam site on 11/16/47 at 12:30PM: 1289.9' (USBR Datum)
Purpose of Bridge: Highway (US 395) (St. #3)

2. T-8866

Name: None
Location: 3 miles west of Kettle Falls, Wn.
Owner: Great Northern Railroad ~~road~~ way
Kind: Fixed
Number of Spans: 1
Channel Span: Hor. Cl. (inner face of pier to pier) -605.2 feet
" " (at points of maximum Vert. Cl. or between warning lights) - 460.2 feet
Vert. Cl. (between warning lights) - 47.5 feet
Date of Field Measurements: 10/10/47 at 2:30 PM
Lake level at Dam site on " " " " - 1289.8' (USBR Datum)
Purpose of Bridge: Railroad

3 T-8867

Name: None
Location: Mouth of Kettle River
Owner: Great Northern Railroad ~~road~~ way
Kind: Fixed
Number of Spans: 1
Channel Span: Hor. Cl. (inner face of pier to edge of irregular rock bluff) - 137.8 feet
Vert. Cl. of lowest part above lake - 37.9 feet
Date of Field Measurements: 10/10/47 at 3:00 PM -
Lake level at Dam site on " " " " - 1289.8' (USBR Datum)
Purpose of Bridge: Railroad

4 Name: Kettle River Bridge T-8867
Location: Mouth of Kettle River
Owner: Washington State Highway Commission
Kind: Fixed
Number of Spans: 1
Channel Span: Hor. Cl. (inner face of pier to edge of irregular rock bluff) - 127.0 feet
Vert. Cl. of lowest part above lake - 33.0 feet
Date of Field Measurements: 10/10/47 at 3:00 PM
Lake level at Dam site on " " " " - 1289.8' (USBR Datum)
Purpose of Bridge: Highway (No number)

5 Name: None T-8867
Location: South of Boyds, Wn.
Owner: Great Northern Railroad Way
Kind: Fixed
Number of Spans: 1
Channel Span: Hor. Cl. - 195.0 feet
Vert. Cl. of lowest part above lake - 27.4 feet
Date of Field Measurements: 10/10/47 at 3:15 PM
Lake level at Dam site on " " " " - 1289.8' (USBR Datum)
Purpose of Bridge: Railroad
p.338 Bridge(s) (1949)

6 Name: None T-8867
Location: At Napoleon, Wn.
Owner: County Highway Commission
Kind: Fixed
Number of Spans: 2
Channel Span: Hor. Cl. of east span - 97.3 feet
of west span - 77.5 feet
Vert. Cl (both spans) of lowest part above lake - 11.4 ft.
Date of Field Measurements: 10/10/47 at 4:00 PM
Lake level at Dam site on " " " " - 1289.9' (USBR Datum)
Purpose of Bridge: Highway
Limit of navigation

7 Name: None T-8871
Location: at Northport, Wn. This bridge has been condemned & abandoned.
Owner: Washington State Highway Commission
Kind: Fixed
Number of Spans: 3
Channel Span: Hor. Cl. between inner faces of piers of each span -242.5'
Vert. Cl. of lowest part above lake (each span) - 38.6'
Date of Field Measurements: 10/9/47 at 2:00 PM
Lake level at Dam site on " " " " - 1289.6 feet (USBR Dat.)
Purpose of Bridge: Condemned as a highway bridge & closed to traffic.

Overhead Cable Crossings:-

1. Power line crossing on north side of RR bridge at Kettle Falls Bridge.
Vert. Cl. - 57.0 feet T-8866
Date of Field Measurements: 10/10/47 at 2:10 PM
Lake level at Dam site on " " " " - 1289.8' (USBR Datum)

2. North cable crossing at Boundary, Wn. T-8872
Vert. Cl. - 66.3 feet
Date of Field Measurement: 10/9/47 at 10.30 AM
Lake level at Dam site on " " " " - 1289.6' do.

3 South Cable crossing at Boundary, Wn. T-8872
Vert. Cl. - 72.6 feet
Date of Field Measurement: 10/9/47 at 10:00 PM
Lake level at Dam site on " " " " - 1289.6' (USBR datum)

4 Power line crossing at Northport, Wn. T-8871
Vert. Cl. - 35.1 feet
Date of Field Measurements: 10/9/47 at 1:00 PM
Lake level at Dam site on " " " " - 1289.6' do.

5 Power line crossing at Little Dalles, Wn. T-8870
Vert. Cl. - 69.9 feet
Date of Field Measurement: 10/10/47 at 10:30 PM
Lake level at Dam site on " " " " - 1289.8' do.

6 Power line crossing NW of Bossburg, Wn. T-8869
Vert. Cl. - 96.1 feet
Date of Field Measurement: 10/10/47 at 12:00 PM
Lake level at Dam site on " " " " - 1289.2' do.

No submarine cable crossings were found in the area. The information listed above has been noted on the field photographs in part.

16. Buildings and Structures:

A complete field investigation was made for buildings or structures along the water front. 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, ...".

20

20. Ferries:

Two motor ferries were investigated and noted on the phtographs; they are:

a. The Gifford-Inchelium Ferry which is privately owned and operated daily. A fee is charged. T-8863

b. The temporary state owned ferry at Northport, Wn., operated daily and free of charge to the public. T-8871

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

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,
Chief of Party

Respectfully submitted:

Charles Hanavich,
Topographic Engineer

COMPILATION REPORT
Map Manuscripts T-8863 to T-8865 Inclusive
Area of the 5th 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.

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-8863 to T-8865 inclusive, were combined into one radial plot known as Radial Plot No. 5, 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 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 was used to supplement the photographs, 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 or reference.)

A complete discussion of this feature may be found in Paragraph 7 of the "Field Inspection Report, Area of the Fifth, Sixth and Seventh Radial Plots," which is attached to this descriptive report.

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 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 islands are the only details offshore from the Mean High-Water Line. (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:

Form 567, recommending the charting of the following non-floating aids to navigation is attached: (also Form 529)

West Bissell Flats Daybeacon, 35----------T-8863 - (located by instrument)
Mission Point 37 Lt.----------T-8863 - (pricked direct)
Gifford Ferry 36 Lt.----------T-8863 - " "
* Chalk Grade 40 Lt.----------T-8864 - "
Shell Rock 41 Lt.----------T-8864 - by instrument
Barnaby Flats Daybeacon 39----------T-8864 - " "
* Rickey 45 Light----------T-8865 -
French Point Rocks 43 Lt.----------T-8865 -

35. Hydrographic Control:

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

Sheet No.	Signals pricked by Field Parties	Signals Rejected	Photo. Hydro. Signals Established
8863	52	1	51
8864	39	2	37
8865	54	3	51

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

* See Review Report.

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 three 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 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 8860 to 8872 inclusive, Project Ph-2(45)", which has been submitted to the Washington Office by the field party.

During the compilation of T-8864 it was found that the geographic name "Pleasant School", as listed in the above report, was in error. The correct listing of this geographic name is: "Pleasant Valley".

38. Recoverable Topographic Stations:

Copies of Form ~~567~~ 534 are being submitted for all 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.

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

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Area of 5th Radial Plot
Project Ph-2(45)
T-8863 to T-8865 Inc.

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

LANDMARKS FOR CHARTS
(Fixed Aids to Navigation)

Coulee Dam, Washington Sept. , 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.T.Deal

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

GENERAL LOCALITY Franklin D. Roosevelt Lake

NAME AND DESCRIPTION	POSITION LATITUDE ° ′	D. M. METERS	LONGITUDE ° ′	D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
T-8863 West Bissell Flats Daybeacon, 35	48 16	(1499.6) 353.7	118 08	(425.1) 812.2	N. A. 1927	Radial Plot	Sept. 21 1947		x		Area not charted
T-8863 Mission Point 37 Lt.	48 21	(683.5) 1169.8	118 11	(1002.5) 232.6	"	"	Oct. 16 1947		x		"
T-8863 Gifford Ferry 36 Lt.	48 18	(1605.4) 247.9	118 09	(1101.8) 134.7	"	"	Oct. 17 1947		x		"
T-8864 Chalk Grade 40, Lt.	48 26	(849.7) 1003.6	118 12	(1214.4) 18.7	"	"	Oct. 10 1947		x		"
T-8864 Shell Rock 41 Lt.	48 27	(612.4) 1240.9	118 13	(1147.3) 84.9	"	3 point fix	Oct. 14 1947		x		"
T-8864 Barnaby Flats Daybeacon 39	48 26	(443.8) 1409.3	118 12	(331.4) 901.0	"	Radial Plot	Oct. 14 1947		x		"
T-8865 Rickey 45 Light	48 32	(517.1) 1336.2	118 08	(803.0) 427.6	"	"	Sept. 25 1947		x		"
T-8865 French Point Rocks 43 Lt.	48 29	(341.7) 1511.6	118 11	(1125.8) 106.0	"	"	Oct. 14 1947		x		"

L.157(48)

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

Hydrographic Signal Sites
8863 - 8864 - 8865
5th Radial Plot

6301	Orange Sig. Cl. on large lone pine
6302	Red Sig. Cl. on large pine
6303	White Sig. Cl. on small pine
6304	White Sig. Cl. on pine near old road
6305	Red Sig. Cl. on large pine
6306	Orange Sig. Cl. on pine U/S of group
6307	Orange Sig. Cl. on pine U/S of 2
6308	Red Sig. Cl. on pine tree
6309	White Sig. Cl. on bushy pine near snag
6310	White Sig. Cl. on pine
6311	Red Sig. Cl. on pine near ferry landing
6312	White Sig. Cl. on U/S of large pines
~~6313~~	~~Orange Sig. Cl. on U/S of large pines~~
6313	Orange Sig. Cl. on inshore pine of 2
6314	Red Sig. Cl. on small pine
6315	White Sig. Cl. on pine
6316	White Cl. on pine
6317	Red Sig. Cl. on pine tree
6318	Red Cl. on D/S pine
6319	Lone tree, W side of road
6320	White on large pine
6321	E gable of pumphouse
6322	Red Sig. Cl. on pine
6323	U/S gable of barn
6324	White Cl. on small pine

GHD

6325 Orange Sig. Cl. on dead pine

6326 Red Cl. on tall pine

6327 White Sig. Cl. on snag

6328 White cloth on tall pine

6329 Red Sig. Cl. on pine, outer of 2

6330 Red Cl. on tall pine

6331 Orange Sig. Cl. on south of 2 pines

6332 White Cl. on tall, bushy pine

6334 Red Cl. on large pine

6335 Red Sig. Cl. on small pine bush

6336 White Cl. on pine

6337 White Sig. Cl. on D/S pine of 2

6338 White Cl. on lone pine

6339 Orange Cl. on pine, D/S and inshore of 2

6340 Red Sig. Cl. on double pine

6341 Red Sig. Cl. on pine

6342 White Cl. on U/S pine

6343 White Sig. Cl. on tall pine

6344 Gable of P.O. at Daisy, Wn.

6345 Orange Sig. Cl. on tall pine in clearing

6347 Red Sig. Cl. on large pine

6349 White Sig. Cl. on pine

6351 Orange Sig. Cl. on pine

6351A Red Sig. Cl. on bushy pine

6301A White Sig. Cl. on tree

6302A White Cl. on outer of 2 trees

6304A Red Cl. on pine near brush

6402 Red Sig. Cl. on small pine

6403 White Sig. Cl. on pine on point

6404 White Sig. Cl. on small pine

6405 Orange Sig. Cl. on large dead pine

6406 Orange Sig. Cl. on small pine

6407 White Sig. Cl. on pine tree

6408 Large pine, D/S and inshore from snag, not flagged

6409 E gable of old barn

6410 Red Sig. Cl. on large pine at base of cliff

6411 Red Sig. Cl. on pine tree

6412 White Sig. Cl. on small pine on rock point

6413 White Sig. Cl. on large forked pine

6414 W gable of "L" shaped building

6415 Red Sig. Cl. on apple tree

6416 Single pine on D/S side of eroded gully (not flagged)

6417 White Sig. Cl. on pine

6418 Single pine on fence, not flagged

6419 U/S gable of small shed

6420 Bushy pine at fence corner, not flagged

6421 U/S gable of house

6422 Forked pine, not flagged

6423 Red Sig. Cl. on small pine

6424 White Sig. Cl. on pine U/S of 2

6425 White Sig. Cl. pine tree

6426 Orange Sig. Cl. on pine

6427 Red Sig. Cl. on fir at top of bank

6428 Red Sig. Cl. on U/S of 2 small pines

6429 White Sig. Cl. on fir

6430 W gable of old barn

6431 Red Sig. Cl. on large pine snag

6432 White Sig. Cl. on pine

6433 White Sig. Cl. on pine

6434 Red Sig. Cl. on pine tree

~~6435 Red Sig. Cl. on pine tree~~

6435 Red Sig. Cl. on pine in clearing

6436 Orange Sig. Cl. on pine

6437 White Sig. Cl. on large pine

6438 White Sig. Cl. on pine between 2 snags

6501 Red Sig. Cl. on large pine

6502 White Sig. Cl. on dead tree

6503 White Sig. Cl. on group of small pines

6504 Orange Sig. Cl. on pine on E side of ditch

6505 Red Sig. Cl. on D/S edge of group of small pines

6505A Orange Sig. Cl. on 3 pronged pine

6506 Red Sig. Cl. on pine, E side of highway

6507 U/S gable of high barn

6508 White Sig. Cl. on pine near highway

6509 White Cl. on pine

6510 Orange Sig. Cl. on pine near ditch

6511 Red Sig. Cl. on bush

6512 Red Sig. Cl. on small pine

6513 Red Sig. Cl. on pine at point

6514 White Sig. Cl. on pine tree

6515 Red Sig. Cl. on pine on point

GHW

6516 SW corner of old concrete foundation

6517 White Sig. Cl. on double pine

6518 D/S gable of pumphouse

6519 Inshore corner of round roofed house

6520 Orange Sig. Cl. on pine

6521 Red cloth on large pine near road

6522 Red Sig. Cl. on fir, D/S from dec. clump

6523 White Sig. Cl. on large snag

6524 U/S gable of house

6525 E gable on large hayshed

6526 White flag on pine

6527 Red Sig. Cl. on pine at middle of orchard

6528 Orange cloth on small pine

6529 E gable of deserted house

6530 River gable, green roofed house

6531 White Cl. on small pine on edge of slide

6532 Red flag on large pine

6533 Red Sig. Cl. on pine at edge of clearing

6535 White Cl. on tall pine

6537 Red Cl. on lone pine

6538 White Sig. Cl. on small pine

6539 White Cl. on tall pine

6540 Orange Sig. Cl. on pine

6542 Red Sig. Cl. on pine tree

6543 White Sig. Cl. on small bushy pine

6544 White Sig. Cl. on double forked poplar

6545 Red Sig. Cl. on bushy pine

6546 Orange Sig. Cl. on forked pine

6547 Gable on shed at top of bench

6548 Red Sig. Cl. on pine

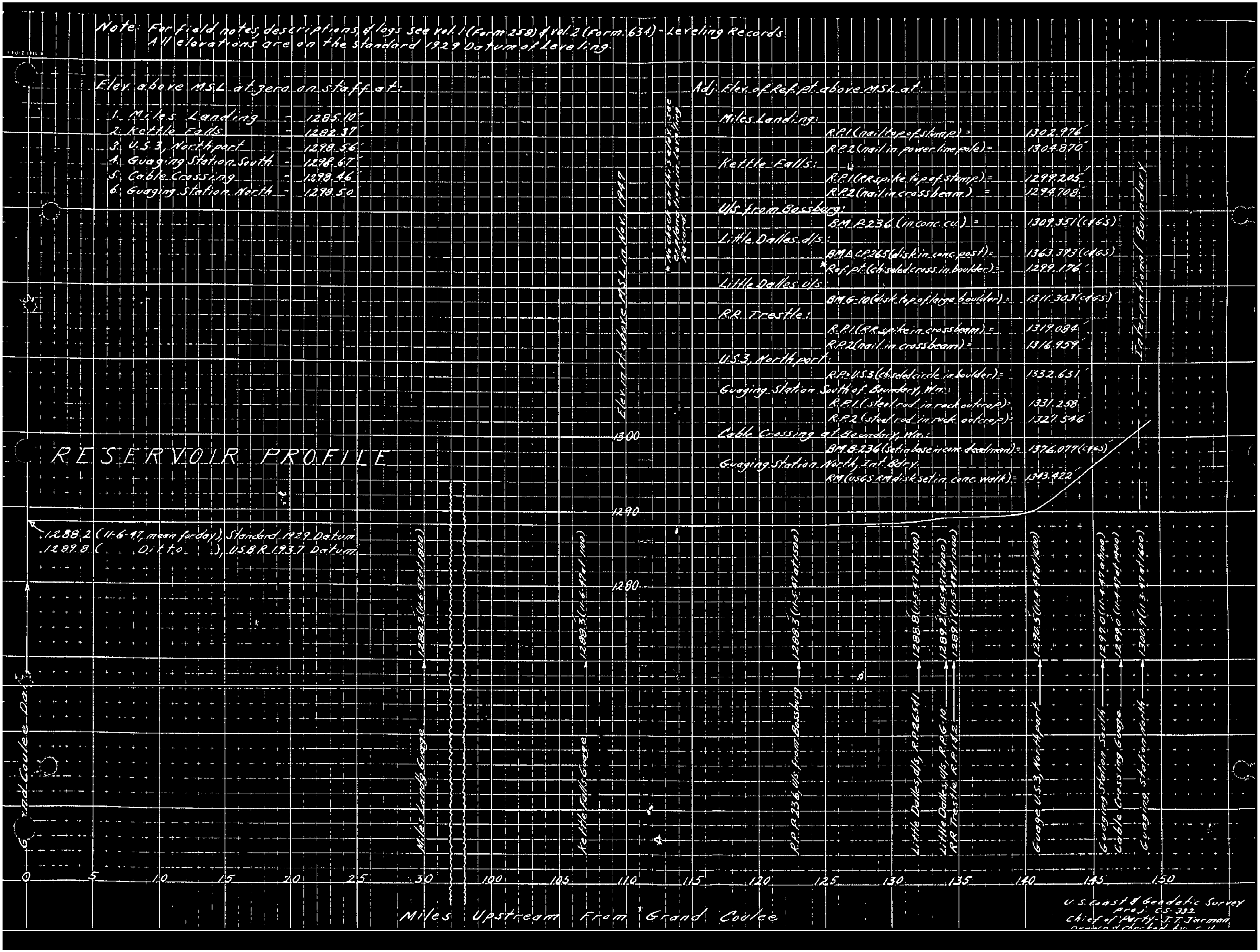
6549 Gable on barn

6550 White Sig. Cl. on pine

6551 White Cl. on pine

6552 W gable of unpainted barn

6553 Orange Cl. on tree, edge of bank


Note: For field notes, descriptions, & logs see Vol. 1 (Form 258) & Vol. 2 (Form 634) - Leveling Records.
All elevations are on the Standard 1929 Datum of Leveling.
Elev. above MSL at zero on staff at:
1. Miles Landing - 1285.10'
2. Kettle Falls - 1282.37'
3. U.S. 3, Northport - 1298.56'
4. Guaging Station South - 1298.67'
5. Cable Crossing - 1298.46'
6. Guaging Station North - 1298.50'
Adj. Elev. of Ref. pt. above MSL at:
Miles Landing:
R.P.1 (nail top of stump) = 1302.976'
R.P.2 (nail in power line pole) = 1304.870'
Kettle Falls:
R.P.1 (RR spike top of stump) = 1299.205'
R.P.2 (nail in crossbeam) = 1299.708'
U/s from Bossburg:
BM P236 (in conc. cu.) = 1309.351 (C&GS)
Little Dalles d/s:
BM A CP265 (disk in conc. post) = 1363.393 (C&GS)
*Ref. pt. (chiseled cross in boulder) = 1299.176'
Little Dalles u/s:
BM G-10 (disk top of large boulder) = 1311.303 (C&GS)
R.R. Trestle:
R.P.1 (RR spike in crossbeam) = 1319.084'
R.P.2 (nail in crossbeam) = 1316.959'
U.S. 3, Northport:
R.P. = U.S. 3 (chiseled circle in boulder) = 1332.631'
Guaging Station South of Boundary, Wn.:
R.P.1 (steel rod in rock outcrop) = 1331.258'
R.P.2 (steel rod in rock outcrop) = 1327.546'
Cable Crossing at Boundary, Wn.:
BM B236 (set in base in conc. deadman) = 1376.077 (C&GS)
Guaging Station North, Int. Bdry.
RM (USGS RM disk set in conc. walk) = 1343.422'
* No check on this elev.; see explanation in Leveling Record.
Elev. in ft. above MSL in Nov. 1947
International Boundary
RESERVOIR PROFILE
1300
1290
1280
1288.2 (11-6-47, mean for day), Standard 1929 Datum
1289.8 (Ditto), USBR 1937 Datum
Grand Coulee Dam
Miles Landg. Guage 1288.2 (11-6-47 at 1800)
Kettle Falls Guage 1288.3 (11-6-47 at 1100)
R.P. P236, U/s from Bossburg 1288.3 (11-5-47 at 1500)
Little Dalles, d/s, R.P. 265 41 1288.8 (11-5-47 at 1300)
Little Dalles, U/s, R.P. G-10 1289.2 (11-5-47 at 1100)
RR Trestle R.P. 1&2 1289.1 (11-5-47 at 1000)
Guage U.S. 3 Northport 1290.5 (11-4-47 at 1600)
Guaging Station South 1297.0 (11-4-47 at 1400)
Cable Crossing Guage 1299.0 (11-4-47 at 1400)
Guaging Station North 1300.9 (11-3-47 at 1600)
0 5 10 15 20 25 30 100 105 110 115 120 125 130 135 140 145 150
Miles Upstream From Grand Coulee
U.S. Coast & Geodetic Survey
Proj. CS-332
Chief of Party - J. T. Jarman

GEOGRAPHIC NAMES

Survey No. T-8863

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
Ferry County										2
Stevens County										3
Colville Indian Reservation										4
Franklin D. Roosevelt Lake									USGB	5
Washington State No. 22										6
										7
Ward School										8
Gifford										9
Gifford Ferry Landing										10
Gifford Inchelium Ferry										11
Stranger Creek		(east bank of lake)								12
Stranger Creek Grange Hall										13
Daisy										14
Daisy Church										15
Daisy School (Elem.)										16
Mission Point										17
St. Michaels Church										18
Colville Indian Reservation Sub-Agency										19
Hall Creek										20
Inchelium										21
Inchelium High School										22
Stranger Creek		(west bank: duplication of names on opposite sides of a major stream is not uncommon)								23
Mc Gees Creek										24
		Names underlined in red are approved.								25
		3/10/49 L H.								26
										27

GEOGRAPHIC NAMES

Survey No. T-8864

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
Ferry County										2
Stevens County										3
Colville Indian Reservation										4
Franklin D. Roosevelt Lake									USGB	5
State Highway No. 22										6
										7
Little Jim Creek										8
Barnaby Mission Cemetery										9
Chewaka Creek										10
Rice										11
Chalk Grade										12
Qillisascut Creek										13
Pleasant Valley										14
Sand Islamd										15
Barnaby Creek										16
Barnaby Creek Road										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red are approved. 3/16/49 L. Heck.

GEOGRAPHIC NAMES

Survey No. T-8865

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
Ferry County										2
Stevens County										3
Colville National Forest			(its southern boundary just south of 48 30' lat.)							4
Franklin D. Roosevelt Lake									USGB	5
State Highway No. 22										6
										7
Quillisascut Creek										8
Pleasant Valley			(should it be continued from T-8864.)							9
Rickey Creek										10
Rickey Canyon										11
Rickey Point										12
Ark Mine										13
Sherman Creek Grange										14
Bangs Mountain Road										15
Martin Creek										16
French Point Rocks										17
La Fleur Creek										18
Stony Acres School										19
Barnaby Creek Road			(check with T-8864 to see if it should be continued on this sheet)							20
										21
										22
			Names underlined in red are approved. 3/21/49 L Heck							23
										24
										25
										26
										27

Division of Photogrammetry
Review Report of
Shoreline Map Manuscripts T-8863 to T-8865
(Area of the Fifth 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). All third-order 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 appearing on the map manuscript is attached to the Descriptive Report.

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

T-8863			T-8864					
Dorr	USBR	1936	Daisy	USBR	1936	Mel	USBR	1936
Hay SS	"	"	Rain	"	"			
			Slate	"	"			
			Harvey	"	"			
			Rice, SS	"	"			

34 Landmarks and Aids to Navigation

T-8864: Chalk Grade No. 40 (1372.2) is located on the east side of Columbia River, but the 1947 and 1948 Light Lists place it on the north side.

T-8865: Pickey No. 45 (1372.5) is located on the east side of Columbia River, but the 1947 and 1948 Light Lists place it on the west side.

The Nautical Chart Branch has been notified of this discrepancy.

37 Geographic Names

Names added during review:

T-8863: McGees Creek
T-8865: Pleasant Valley
La Fleur Creek

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

43 Comparison with Previous Topographic Surveys

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

44 Comparison with Existing Topographic Quadrangles

U.S.E. Bissell 1/125,000 1939 (tactical). Not available for comparison.

The adjoining maps of this series contain no contours, and the highways and other culture are obsolete. It is, therefore, assumed that the present surveys supersede the survey listed above for their common area, except for the land net and boundaries, as was the case in the areas common to the other maps of the U.S.E. series.

U.S.G.S. Marcus 1/125,000 ed 1942

The present survey supersedes the quadrangle for shoreline and for the highways near the impounded water area in that portion of the quadrangle common to T-8863-5.

Reviewed by:

Iena T. Stevens.
T-8863 9 March, 1949
T-8864 15 March, 1949
T-8865 18 March, 1949

Approved by:

L. V. Griffith K.H.M.
Chief, Review Section

G. G. Edmonston
Chief, Nautical Chart Branch, Division of Charts

O. S. Reading
Chief, Div. of Photogrammetry

W. M. Leaf
Chief, Div. of Coastal Surveys

applied to Ch 6169 - JJW 2/5/53