Wm. A. Lamb.

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

WATER-SUPPLY PAPER 346

PROFILE SURVEYS

IN THE BASIN OF

CLARK FORK OF COLUMBIA RIVER

MONTANA-IDAHO-WASHINGTON

District Engineer

PREPARED UNDER THE DIRECTION OF

R. B. MARSHALL, CHIEF GEOGRAPHER

WASHINGTON
GOVERNMENT PRINTING OFFICE
1914

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PROFILE SURVEYS IN THE BASIN OF CLARK FORK OF COLUMBIA RIVER, MONTANA-IDAHO-WASHINGTON.

Prepared under the direction of R. B. MARSHALL, Chief Geographer.

GENERAL FEATURES OF THE CLARK FORK BASIN.

Clark Fork of Columbia River rises in the Silver Bow Mountains, Mont., about 18 miles southwest of Butte. For about 40 miles it flows northward, but near Garrison, Powell County, it turns to the northwest and maintains this general course through a distance of about 125 miles until it reaches St. Regis, in Missoula County, where it turns abruptly to the northeast. At Paradise, in Sanders County, it resumes its northwesterly course, passing between the Cœur d'Alene and Cabinet ranges, crossing the "panhandle" of Idaho in Bonner County, flowing through Lake Pend Oreille, and entering Washington at Newport, in Stevens County. From Usk to the international boundary line its course is northward, and just beyond the boundary it turns directly west to its junction with the Columbia just inside Canadian territory. From source to mouth its length, exclusive of windings, is, roughly, 420 miles, and its drainage area measures 25,800 square miles. To the river thus described various names have been applied in the past[1] and may still be used locally.

The Land Office maps of Montana, Idaho, and Washington show more than 150 streams tributary to Clark Fork, but by far the greater number of these are very short, and scarcely a dozen can be called rivers. The most important are listed in the table following:

Principal tributaries of Clark Fork of Columbia River.

From the south and west.	From the north and east.
Flint Creek.	Little Blackfoot River.
Rock Creek.	Big Blackfoot River.
Bitterroot River.	Flathead River.
	Thompson River.
	Vermilion Creek.
	Priest River.
	Salmon River (British Columbia).

Altitudes within the basin range from 1,346 feet above sea level at Boundary to more than 8,000 feet above at the summits of some

[1] "Clark Fork; river in Idaho, Montana, and Washington. (Not Bitter Root, Bitterroot, Clarke, Clarks River, Deer Lodge, Deerlodge, Hell Gate, Hellgate, Missoula, Silver Bow, nor Silverbow.)"—Third Report U. S. Board Geog. Names, 1907, p. 51. Bitterroot in this decision refers to a portion of the main stream so called, and not to the tributary known as Bitterroot River.

of the peaks of the Mission Range. Clark Fork has many rapids and falls, and in places the rocky gorge is narrow enough to be spanned by foot logs. The stream falls nearly 500 feet in the last 40 miles of its course.

A great deal of snow lies in the mountains from November to June, and many of the streams are frozen over during the winter months. Throughout the greater part of the year, however, the streams are open.

Irrigation in the Bitterroot Valley has been developed extensively. The United States Reclamation Service is irrigating the Flathead Indian Reservation by diverting water from the smaller streams. A project to dam Flathead River and develop power for pumping water from the lake is now under way. One hundred thousand acres will be irrigated on the Flathead.

Reservoir sites available for storage are numerous. The Mission Range has several that will be used by the Reclamation Service, and good storage-reservoir sites are also to be found on the Bitterroot and upper Little Bitterroot.

The drainage basin contains many valuable power streams. On a few streams power plants have already been installed and more are under construction. The lower 20 miles of the main river offers some exceptional opportunities for power developments in large units.

GAGING STATIONS.

In order to show the possibilities for development of Clark Fork the Geological Survey has maintained gaging stations at points on the main stream and its tributaries, as shown in the following list, and surveys have been made which show the fall in the stream and conditions along the bank between Deer Lodge, Mont., and the international boundary. The results of these surveys are shown on the 22 sheets forming Plates I to III.

Gaging stations in Clark Fork basin.

[NOTE.—Dash following date indicates that station was being maintained Jan. 1, 1914.]

Clark Fork at Missoula, Mont., 1898–1907.
Clark Fork near St. Regis, Mont., 1910–
Clark Fork near Plains, Mont., 1910–
Clark Fork at Priest River, Idaho, 1903–1905.
Clark Fork at Newport, Wash., 1904–
Clark Fork at Metaline, Wash., 1908–
Racetrack Creek near Anaconda, Mont., 1911–
Little Blackfoot River and ditch near Elliston, Mont., 1910–
Rock Creek near Como, Mont., 1910.
Rock Creek near Quigley, Mont., 1910–
Big Blackfoot River at Bonner, Mont., 1898–1905.
Rattlesnake Creek at Missoula, Mont., 1899–1900.

Clark Fork—Continued.
Bitterroot River, West Fork, near Darby, Mont., 1910–
Bitterroot River near Como, Mont., 1898–1899.
Bitterroot River near Grantsdale, Mont., 1902–1907.
Bitterroot River near Missoula, Mont., 1889–1901; 1903–4.
Bitterroot River, East Fork, near Darby, Mont., 1910–
Lolo Creek near Lolo, Mont., 1910–
St. Regis River near St. Regis, Mont., 1910–
Flathead River, North Fork (head of Flathead River), near Columbia Falls, 1910–
Flathead River at Demersville, near Kalispell, Mont., 1909–1912.
Flathead River at Damon's ranch, near Kalispell, Mont., 1909–1912.
Flathead River at Holt, Mont., 1909–1912.
Flathead Lake (on Flathead River) at Holt, Mont., 1900.
Flathead Lake at Polson, Mont., 1900–1901; 1908–
Flathead River near Polson, Mont., 1907–
Flathead River, Middle Fork, at Belton, Mont., 1910–
Lake McDonald outlet at Lake McDonald, Mont., 1912–
Flathead River, South Fork, near Columbia Falls, Mont., 1910–
Swan River near Big Fork, Mont., 1910–11.
Stillwater River near Kalispell, Mont., 1906–7.
Whitefish River near Kalispell, Mont., 1906.
Little Bitterroot Creek near Marion, Mont., 1910–
Little Bitterroot Creek near Hubbart, Mont., 1909–
Little Bitterroot Creek near Dayton, Mont., 1908–1910.
Crow Creek near Ronan, Mont., 1906–
Crow Creek at Lozeau's ranch, near Ronan, Mont., 1911–
Mud Creek near Ronan, Mont., 1908–1910.
Mission Creek near St. Ignatius, Mont., 1906–
Dry Creek near St. Ignatius, Mont., 1908–
Post Creek near St. Ignatius, Mont., 1911–
Post Creek at Fitzpatrick's and Deschamp's ranches, near Ronan, Mont., 1906–1911.
Jocko River, North Fork, near Jocko, Mont., 1912–
Jocko River near Jocko, Mont., 1908–
Jocko River at Ravalli, Mont., 1906–1911.
Falls Creek near Jocko, Mont., 1912–
Jocko River, South Fork, near Jocko, Mont., 1912–
Jocko River, Middle Fork, near Jocko, Mont., 1912–
Big Knife Creek near Jocko, Mont., 1908–
Agency Creek near Jocko, Mont., 1908–
Blodgett Creek near Jocko, Mont., 1909–10.
Finley Creek near Jocko, Mont., 1908–
East Finley Creek near Jocko, Mont., 1908–
Indian ditch near Jocko, Mont., 1908–
Valley Creek near Ravalli, Mont., 1908–1911.
Revais Creek near Dixon, Mont., 1911.
Thompson River near Thompson Falls, Mont., 1911–
Prospect Creek near Thompson Falls, Mont., 1911–
Priest Lake at Priest Lake, near Coolin, Idaho, 1911–
Priest River near Priest River, Idaho, 1910–1912.
Sullivan Creek near Metaline, Wash., 1912–
Sullivan flume near Metaline, Wash., 1912–
Sullivan Lake near Metaline, Wash., 1912–

PUBLICATIONS.

The data on stream flow at the stations mentioned in the foregoing table have been published in the annual progress reports of stream measurements listed below by years.

1898___ 20th Annual Report, Part IV.	1905_____ Water-Supply Paper 178
1899_____ Water-Supply Paper 38	1906_____ Water-Supply Paper 214
1900_____ Water-Supply Paper 51	1907–8_____ Water-Supply Paper 252
1901_____ Water-Supply Papers, 66, 75	1909_____ Water-Supply Paper 272
1902_____ Water-Supply Paper 85	1910_____ Water-Supply Paper 292
1903_____ Water-Supply Paper 100	1911_____ Water-Supply Paper [1]312
1904_____ Water-Supply Paper 135	1912_____ Water-Supply Paper [2]332

Water-supply papers and other publications of the United States Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

1. Copies may be obtained free of charge by applying to the Director of the Geological Survey, Washington, D. C. The edition printed for free distribution is, however, small and is soon exhausted.

2. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will on application furnish lists giving prices.

3. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

4. Complete sets are available for consultation in the local offices of the water-resources branch of the Geological Survey, as follows:

Albany, N. Y., Room 18, Federal Building.
Atlanta, Ga., Post-office Building
Madison, Wis., Capitol Building.
St. Paul, Minn., Old Capitol Building.
Helena, Mont., Montana National Bank Building.
Denver, Colo., 302 Chamber of Commerce Building.
Salt Lake City, Utah, Federal Building.
Boise, Idaho, 615 Idaho Building.
Portland, Oreg., 416 Couch Building.
Tacoma, Wash., Federal Building.
San Francisco, Cal., 505 Customhouse.
Los Angeles, Cal., Federal Building.
Santa Fe, N. Mex., Capitol Building.
Honolulu, Hawaii, Kapiolani Building.

A list of the Geological Survey's publications will be sent on application to the Director of the United States Geological Survey, Washington, D. C.

[1] In press.

[2] In preparation.

○

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK.
DEER LODGE, MONTANA, TO ST. REGIS, MONTANA

WATER-SUPPLY PAPER. 346 PLATE I A

Subject to adjustment

9 SHEETS

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1910

APPROXIMATE MEAN DECLINATION 1910
TRUE NORTH
MAGNETIC NORTH
21°

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval 5 feet
Datum is mean sea level
1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
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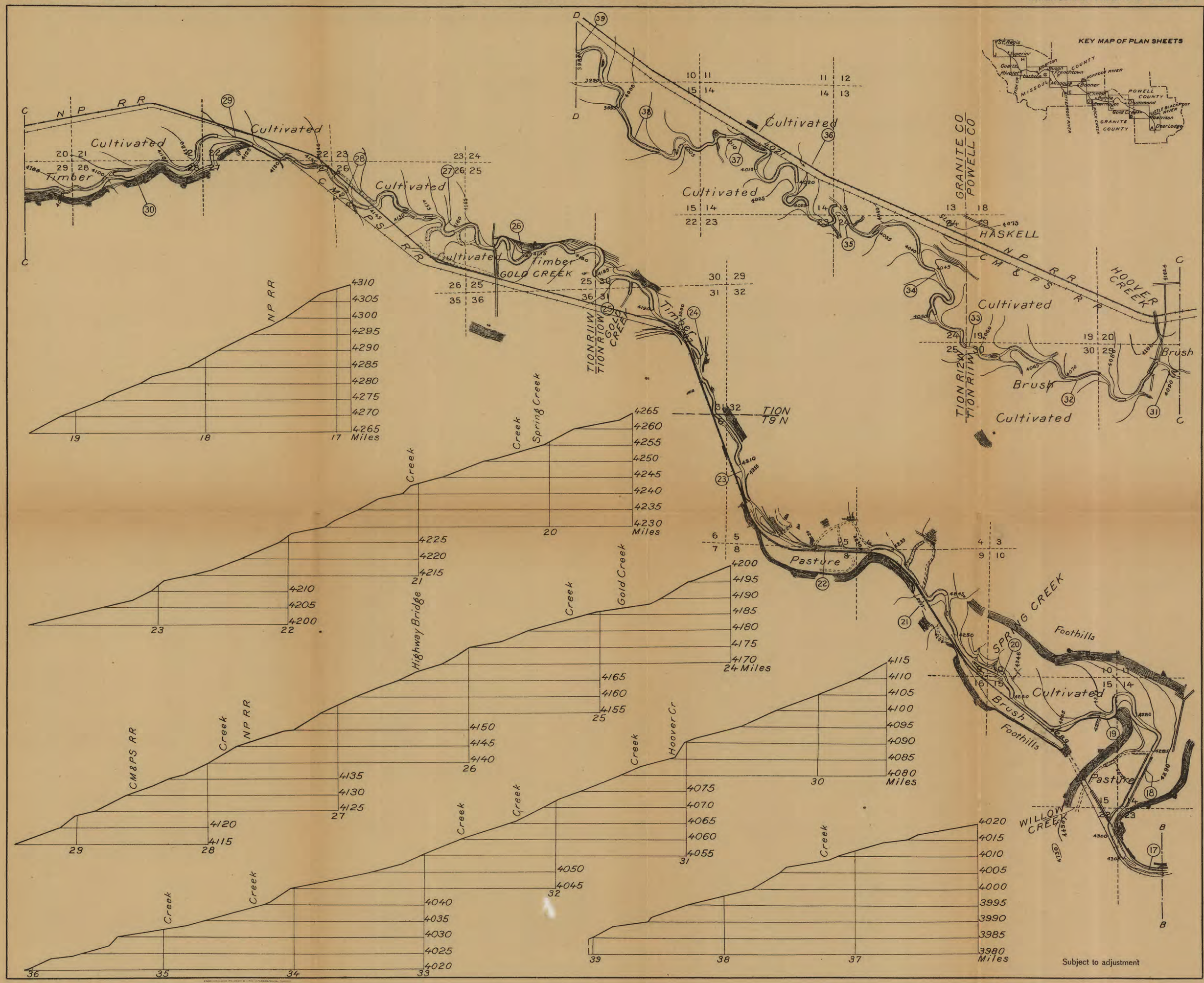
U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, DEER LODGE, MONTANA, TO ST. REGIS, MONTANA

WATER-SUPPLY PAPER 346 PLATE I B



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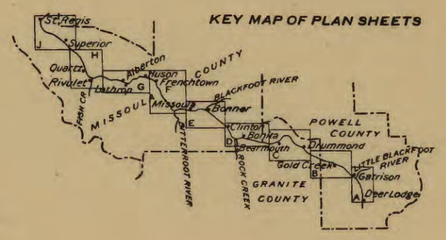
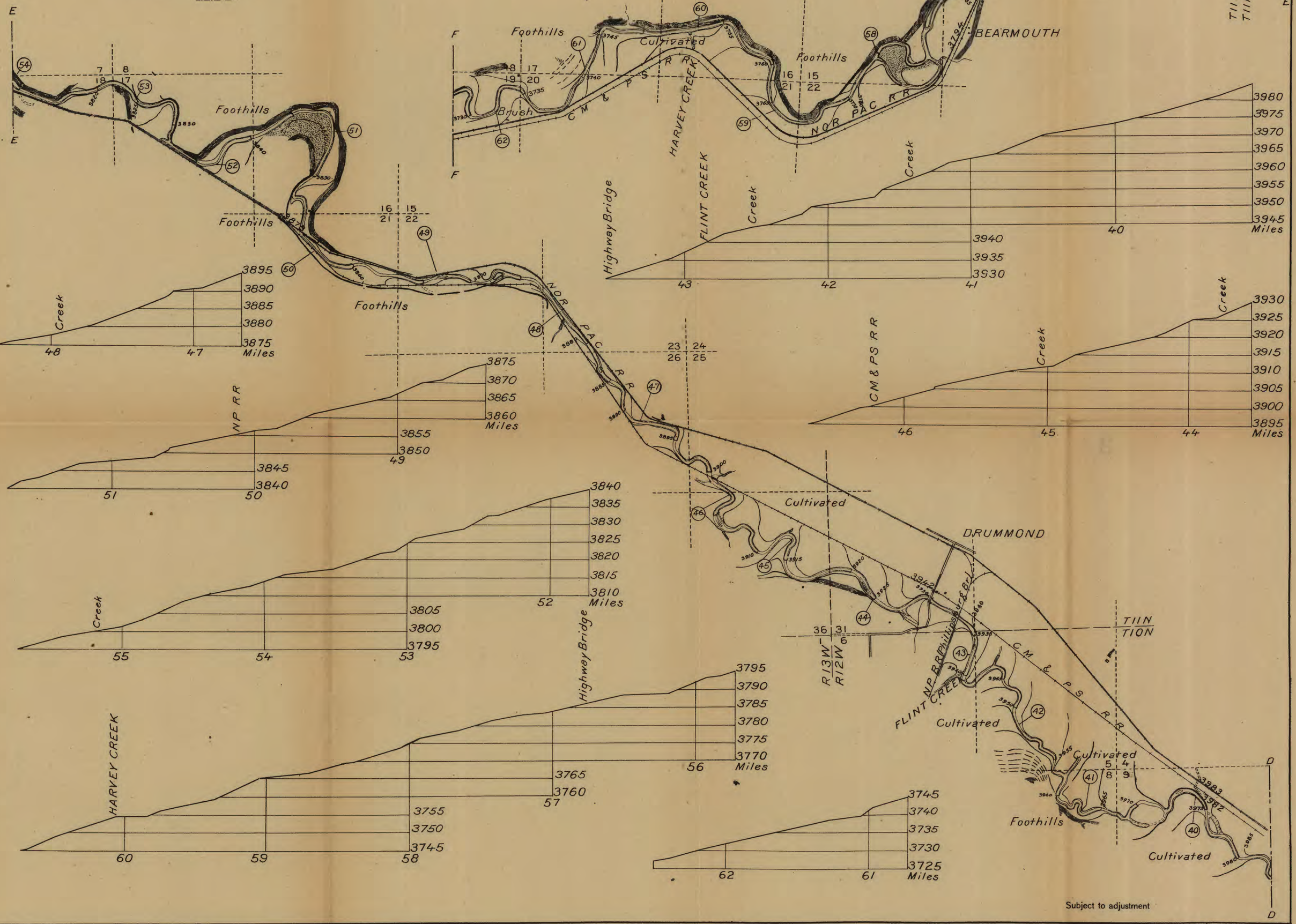
PLAN AND PROFILE OF CLARK FORK, DEER LODGE, MONTANA, TO ST. REGIS, MONTANA





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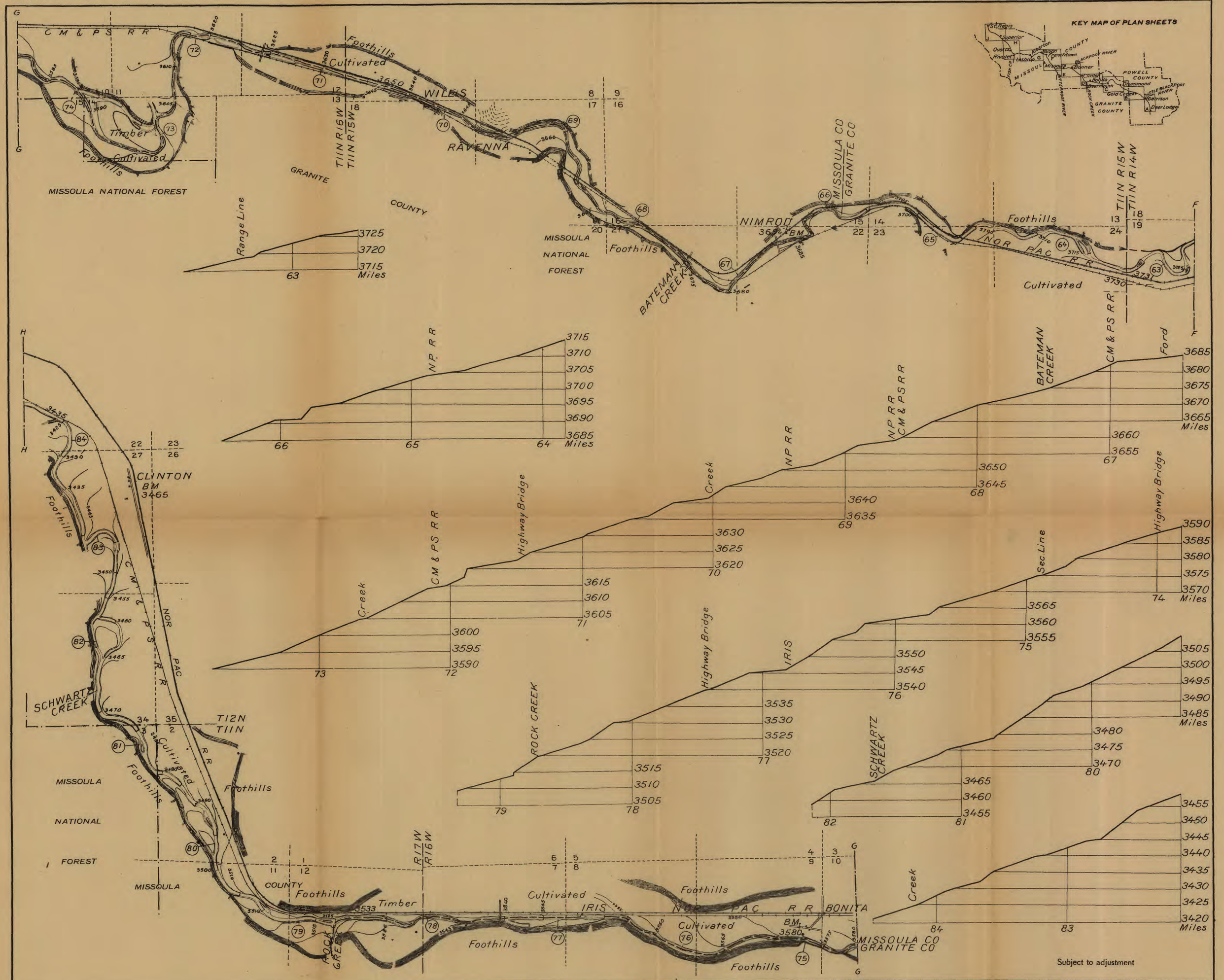
PLAN AND PROFILE OF CLARK FORK, DEER LODGE, MONTANA, TO ST. REGIS, MONTANA

WATER-SUPPLY PAPER 346 PLATE I D



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DEER LODGE, MONTANA, TO ST. REGIS, MONTANA

WATER-SUPPLY PAPER 346 PLATE I E

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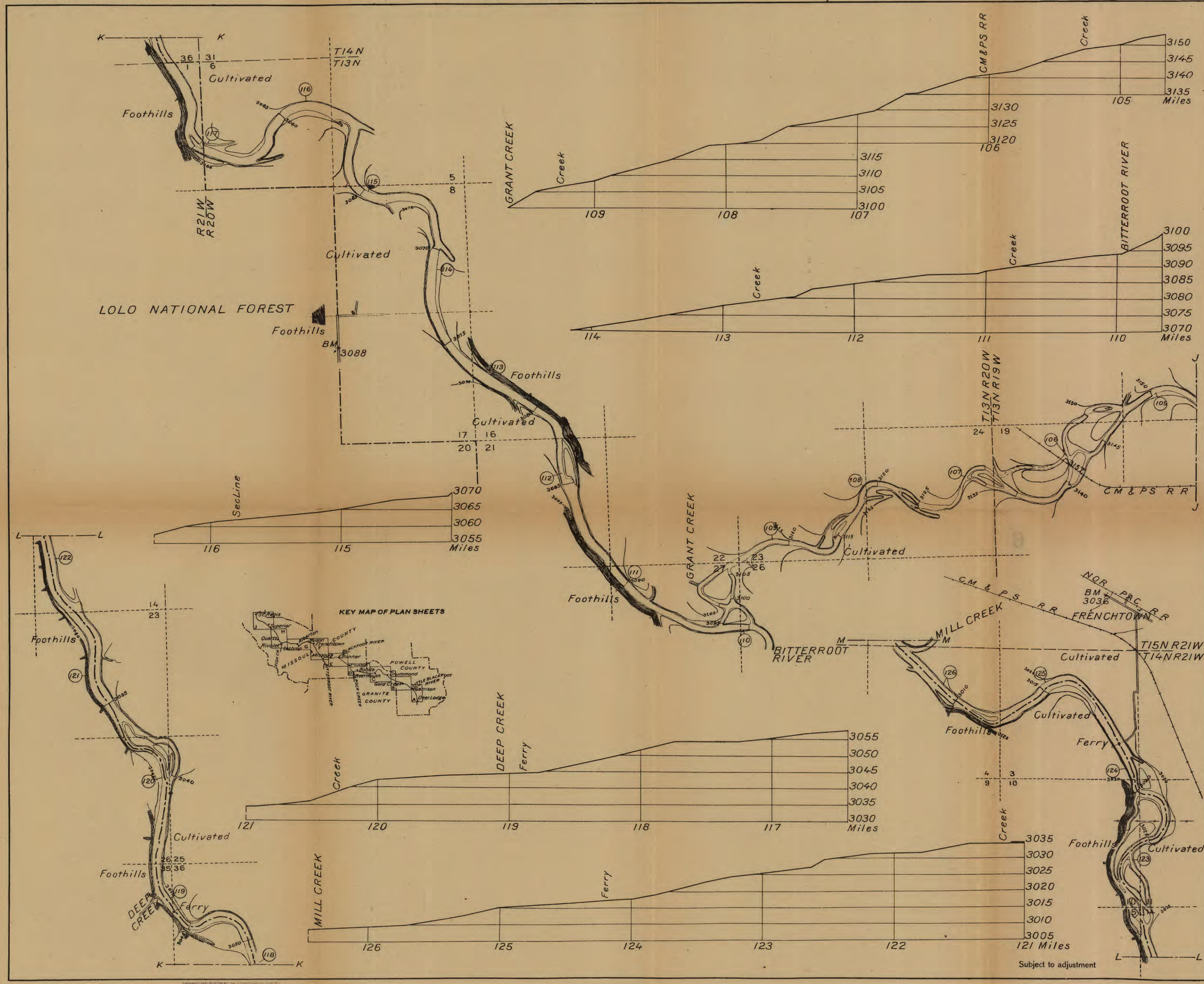
CLARK FORK.
DEER LODGE, MONTANA, TO ST. REGIS, MONTANA

WATER-SUPPLY PAPER 346 PLATE I F



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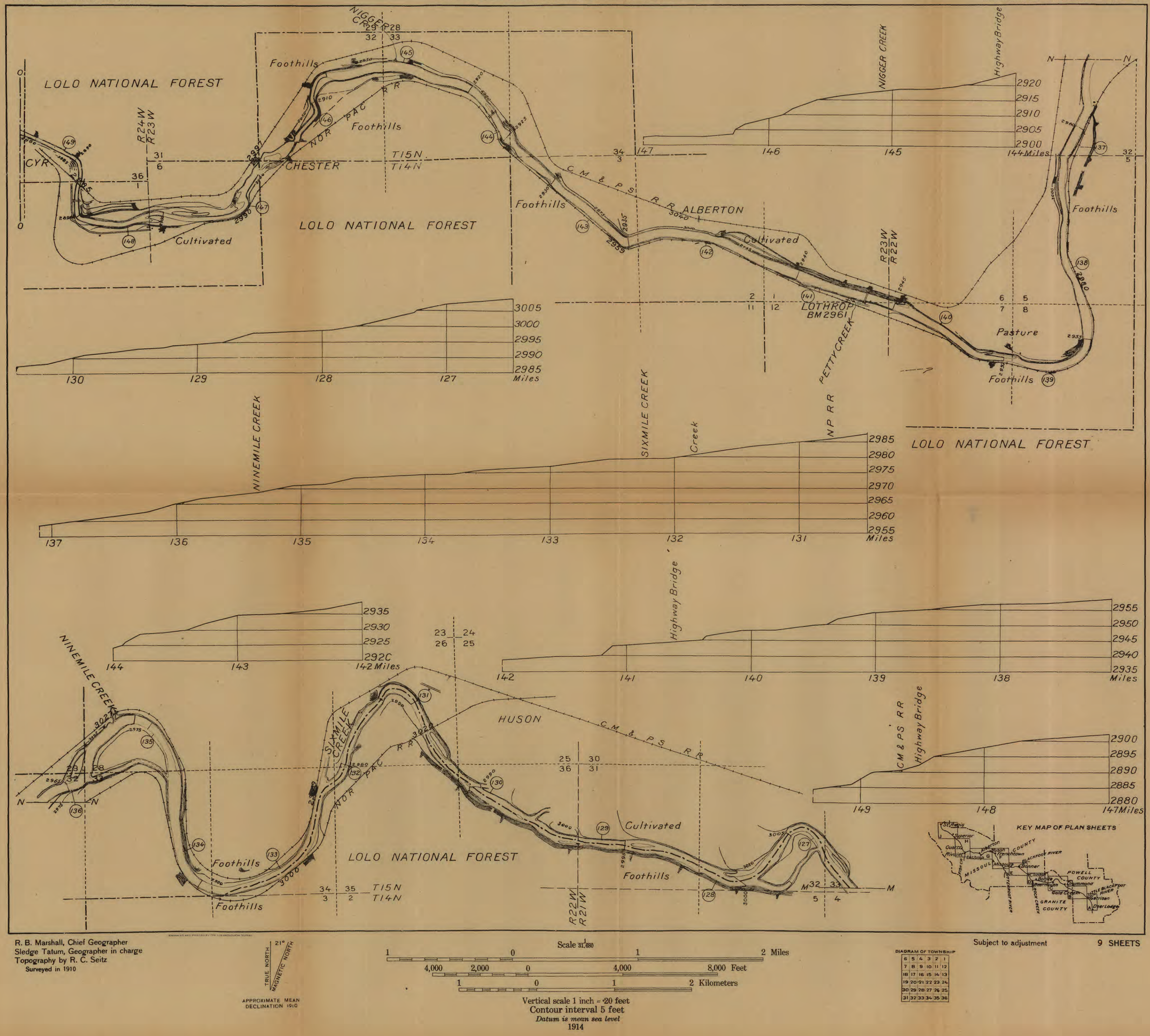

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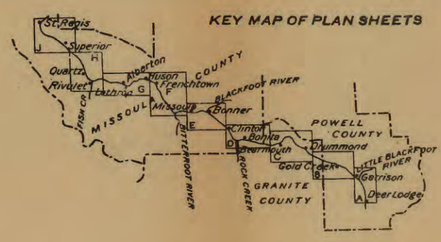
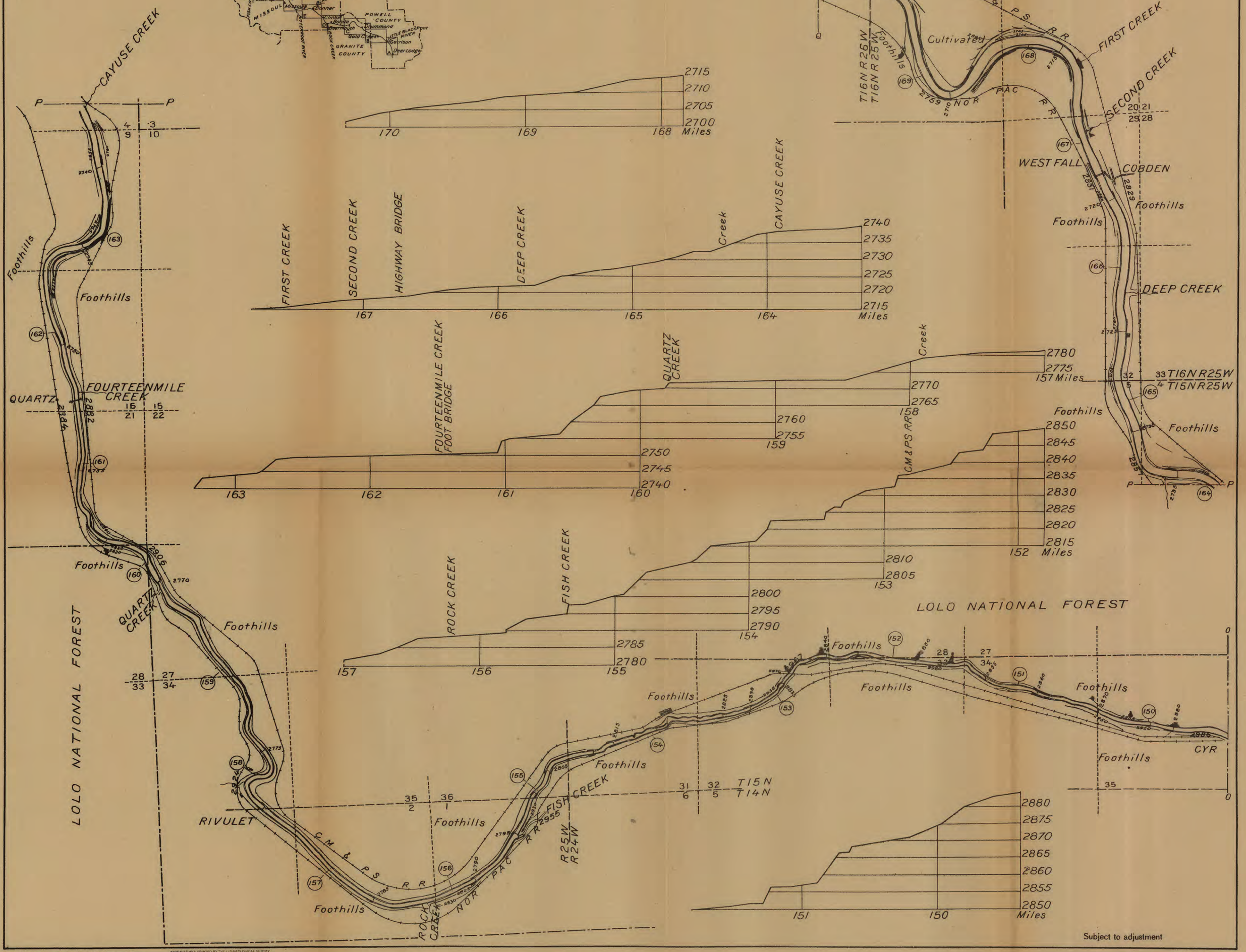
PLAN AND PROFILE OF CLARK FORK, DEER LODGE, MONTANA, TO ST. REGIS, MONTANA

WATER-SUPPLY PAPER 346 PLATE I H

KEY MAP OF PLAN SHEETS





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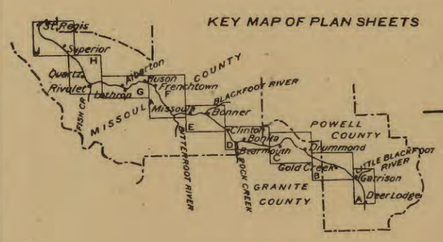
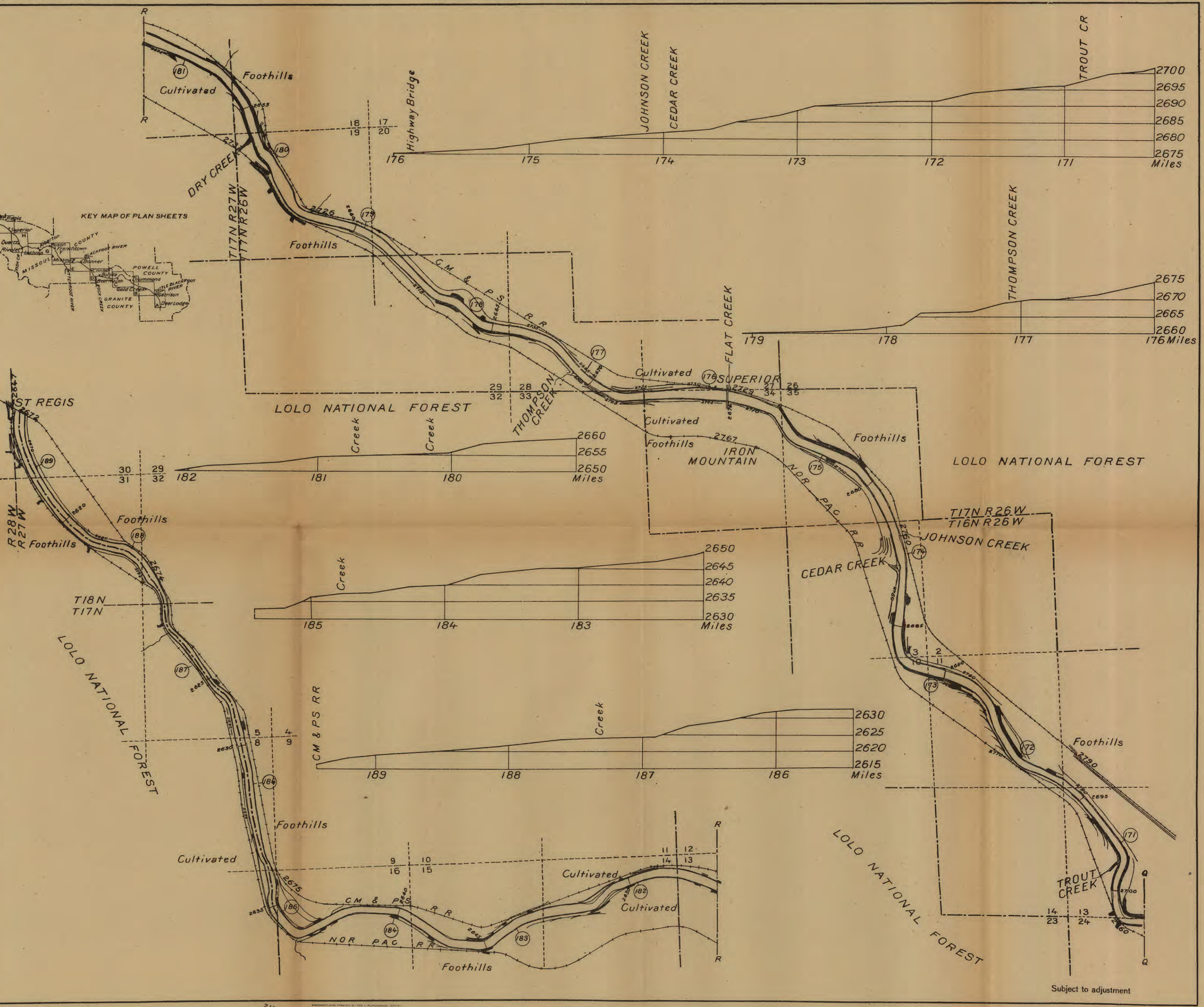
WATER-SUPPLY PAPER 346 PLATE I J

KEY MAP OF PLAN SHEETS





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APPROXIMATE MEAN DECLINATION 1910

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PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

WATER-SUPPLY PAPER 346 PLATE II A

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911
TRUE NORTH
MAGNETIC NORTH
22°

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
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Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
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8 SHEETS

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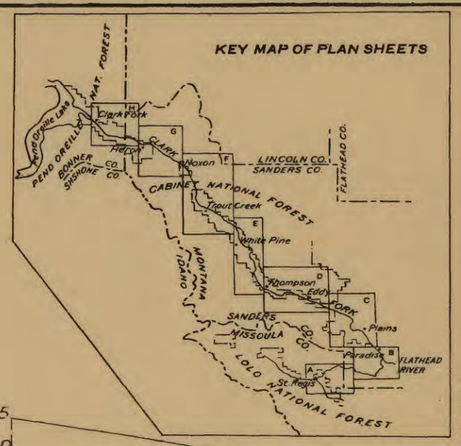
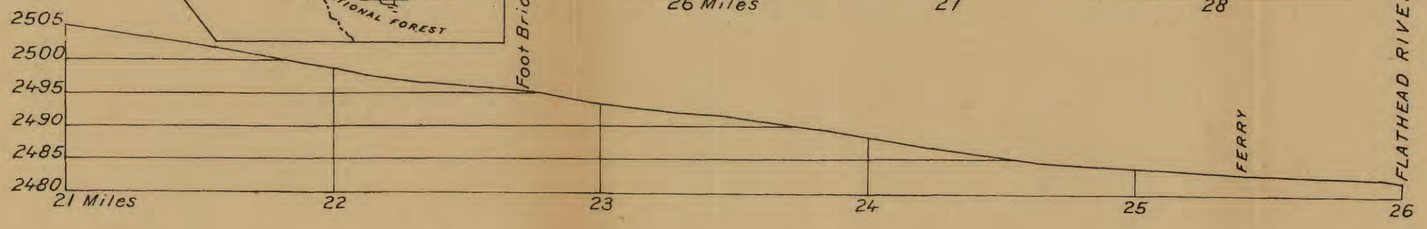
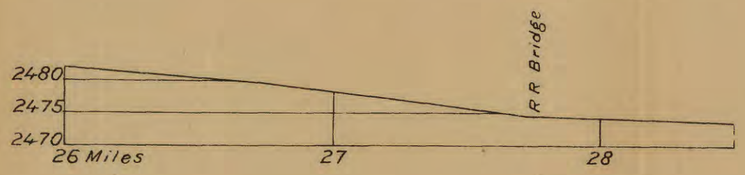
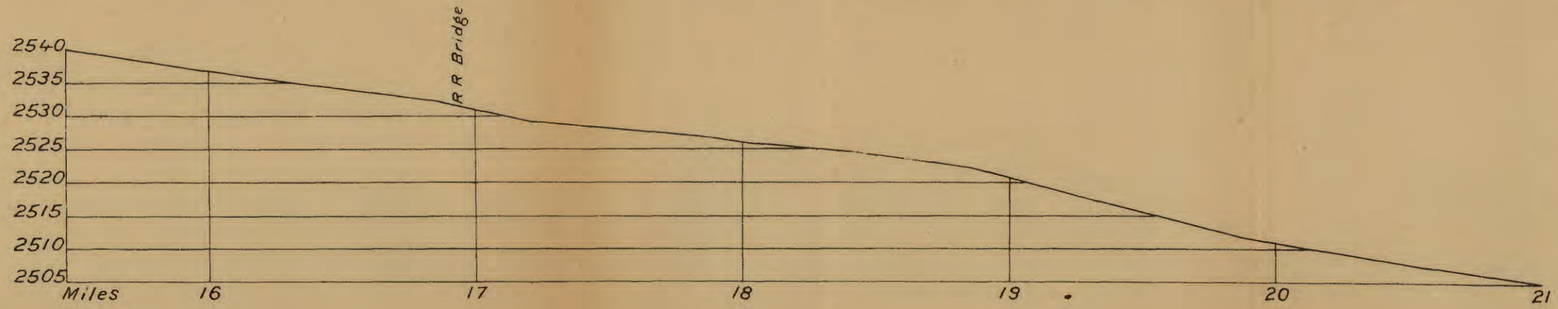
PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

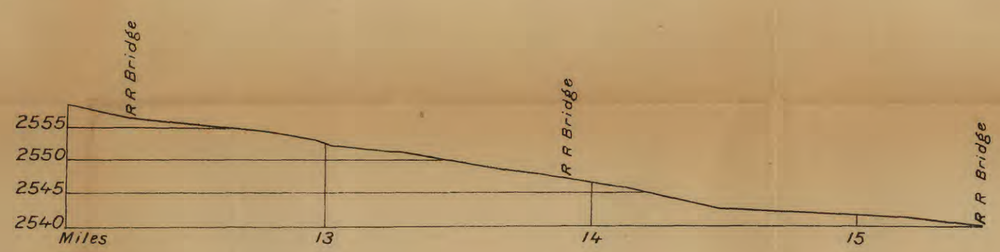
WATER-SUPPLY PAPER 346 PLATE II B











R. B. Marshall, Chief Geographer
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Topography by R. C. Seitz
Surveyed in 1911

Scale $\frac{1}{31,680}$

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7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

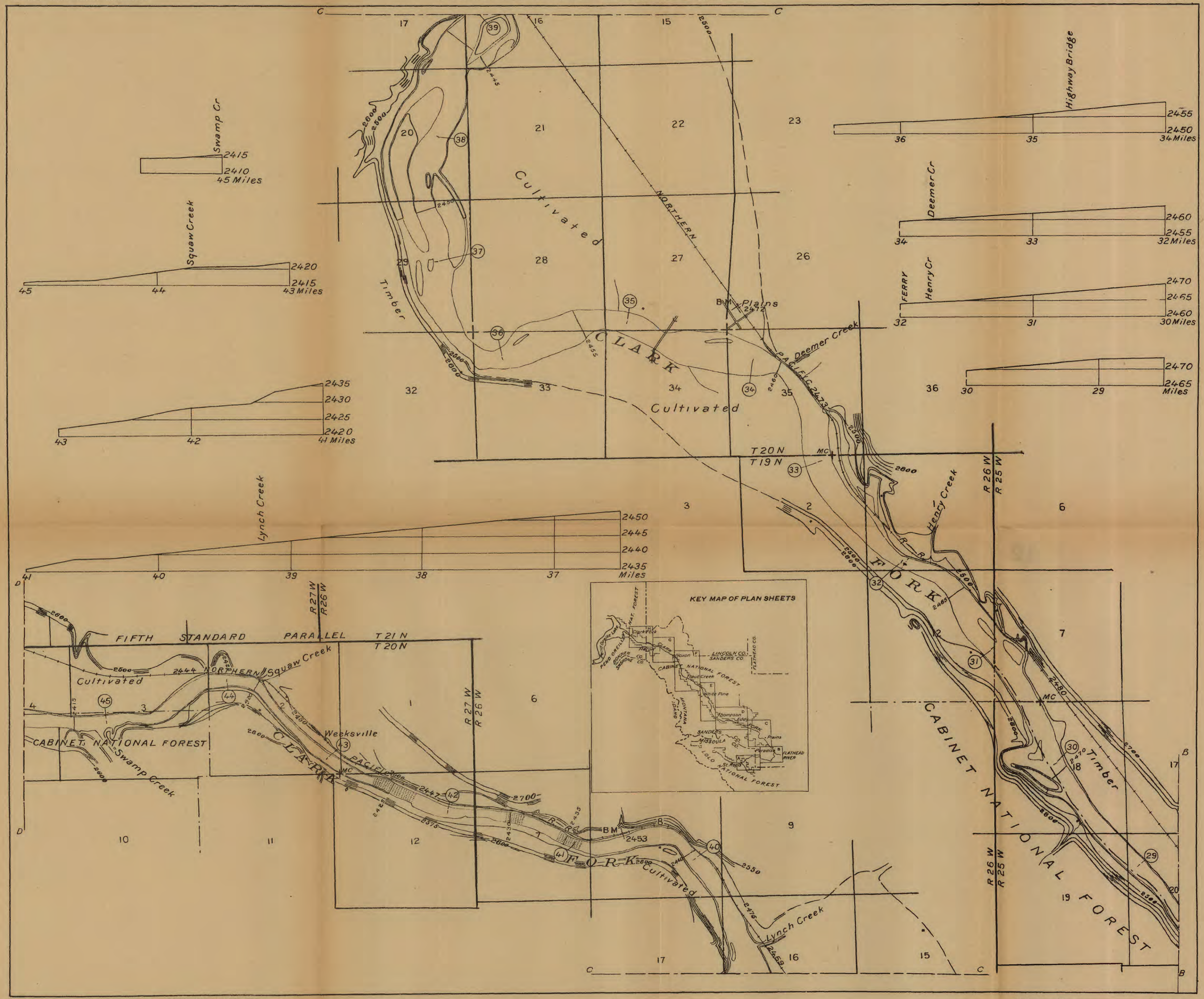
Subject to adjustment

8 SHEETS

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

WATER-SUPPLY PAPER 346 PLATE II C



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Subject to adjustment

8 SHEETS

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

WATER-SUPPLY PAPER 346 PLATE II D

CABINET NATIONAL FOREST

NORTHERN PACIFIC

CLARK FORK

Thompson PO
Thompson Falls
BM 2438
Prospect Creek
Cultivated
Thompson River
Cherry Creek
Highway Bridge
Thompson Falls
Squaw Cr
Eddy
MC BM 2427
T21N
T20N
FIFTH STANDARD PARALLEL
BM 2443

Profile: Prospect Cr – Thompson Falls – Cherry Cr, 61 Miles

Profile: Cherry Cr – Squaw Cr, 58 Miles

Profile: Thompson River, 55 Miles

Profile: Squaw Cr, 51 Miles

KEY MAP OF PLAN SHEETS

R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

ENGRAVED AND PRINTED BY THE U.S. GEOLOGICAL SURVEY

APPROXIMATE MEAN DECLINATION 1911

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Subject to adjustment

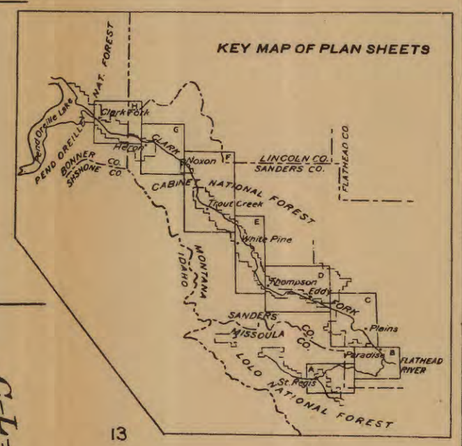
8 SHEETS

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

WATER-SUPPLY PAPER 346 PLATE II E

KEY MAP OF PLAN SHEETS



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

ENGRAVED AND PRINTED BY THE U.S. GEOLOGICAL SURVEY

APPROXIMATE MEAN DECLINATION 1911

Scale 1/31,680

1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

Subject to adjustment

8 SHEETS

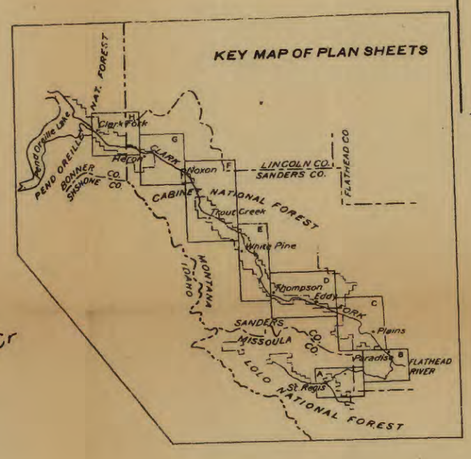
U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

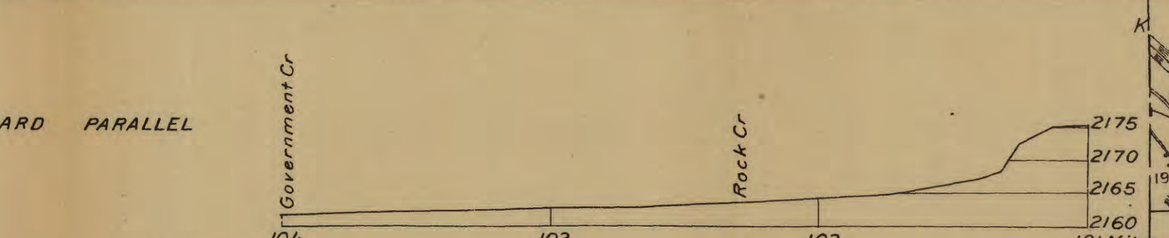
PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

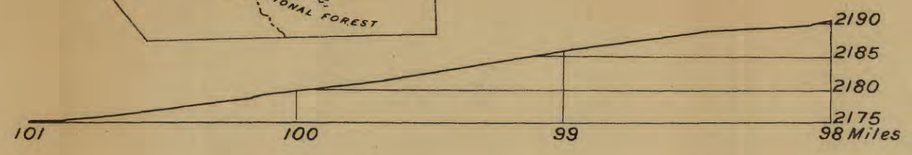
WATER-SUPPLY PAPER 346 PLATE II F

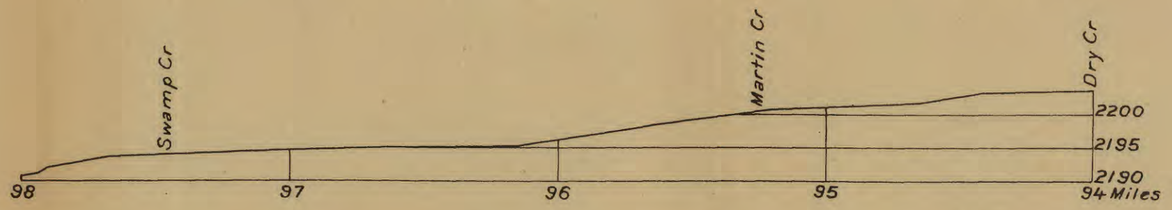
T 25 N
T 24 N
SIXTH STANDARD PARALLEL
R 32 W
R 31 W
R 31 W
R 30 W
CLARK FORK
CABINET NATIONAL FOREST
NORTHERN PACIFIC
Trout Creek
Rock Cr
Government Creek
Rock Island
Furlong
Swamp Cr
Martin Cr
Dry Cr
Vermilion Cr
Beaver Cr
Trout Creek FERRY
Vermilion FERRY
LOW GRADE LINE
T25N R1E
T25N R2E
T24N R2E

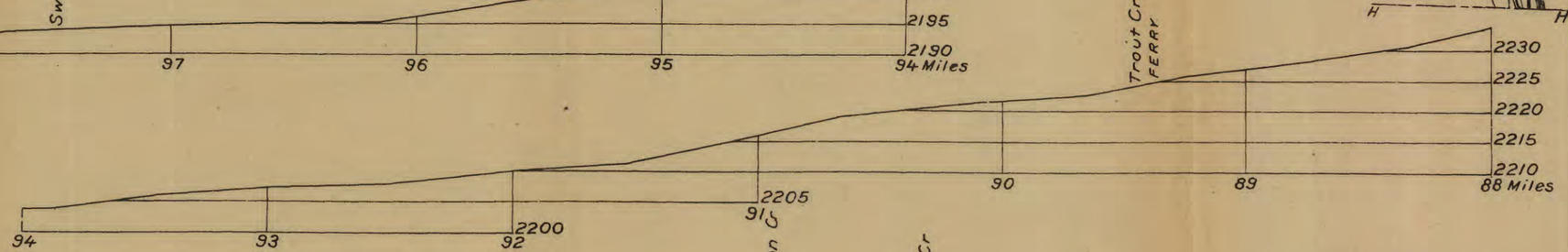
KEY MAP OF PLAN SHEETS

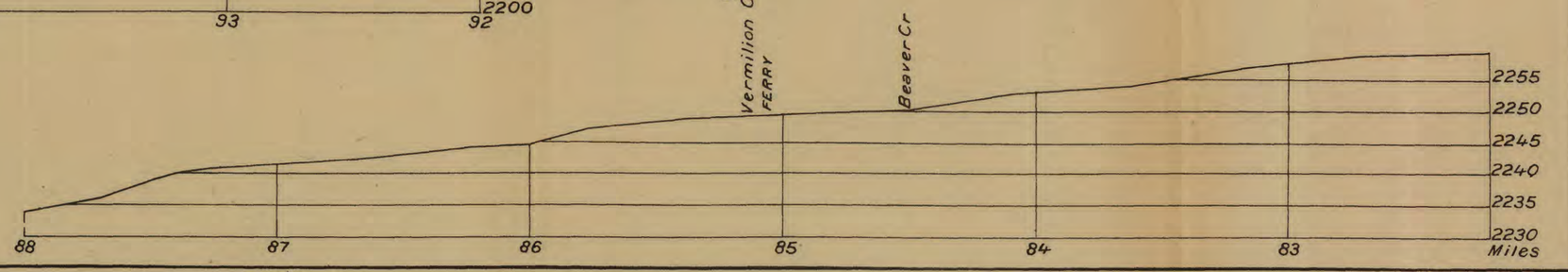












R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911
TRUE NORTH
MAGNETIC NORTH
22½°

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

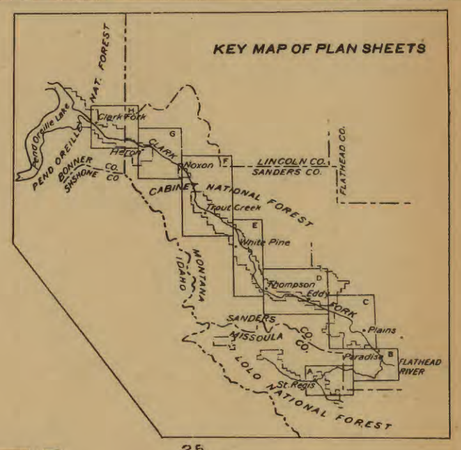
Subject to adjustment

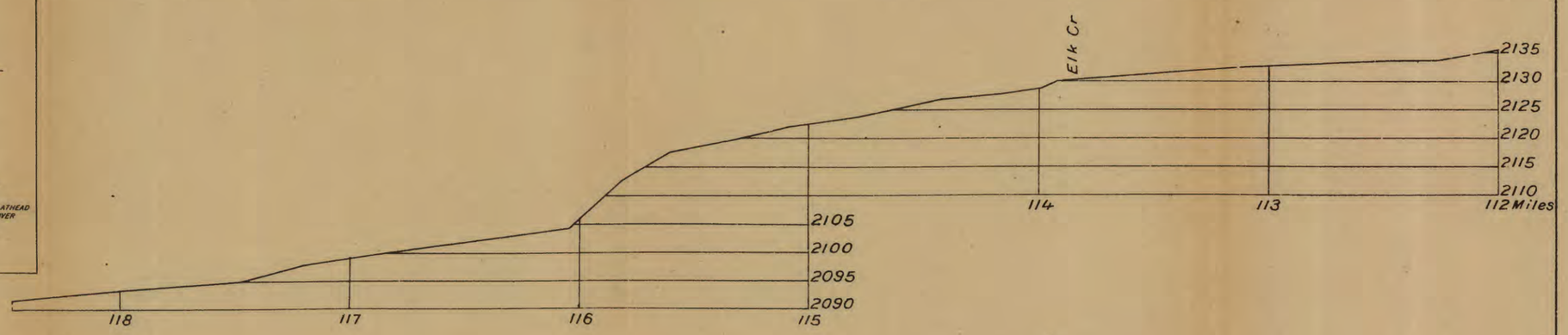
8 SHEETS

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

WATER-SUPPLY PAPER 346 PLATE II G





R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

APPROXIMATE MEAN DECLINATION 1911
TRUE NORTH
MAGNETIC NORTH
22 3/4°

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

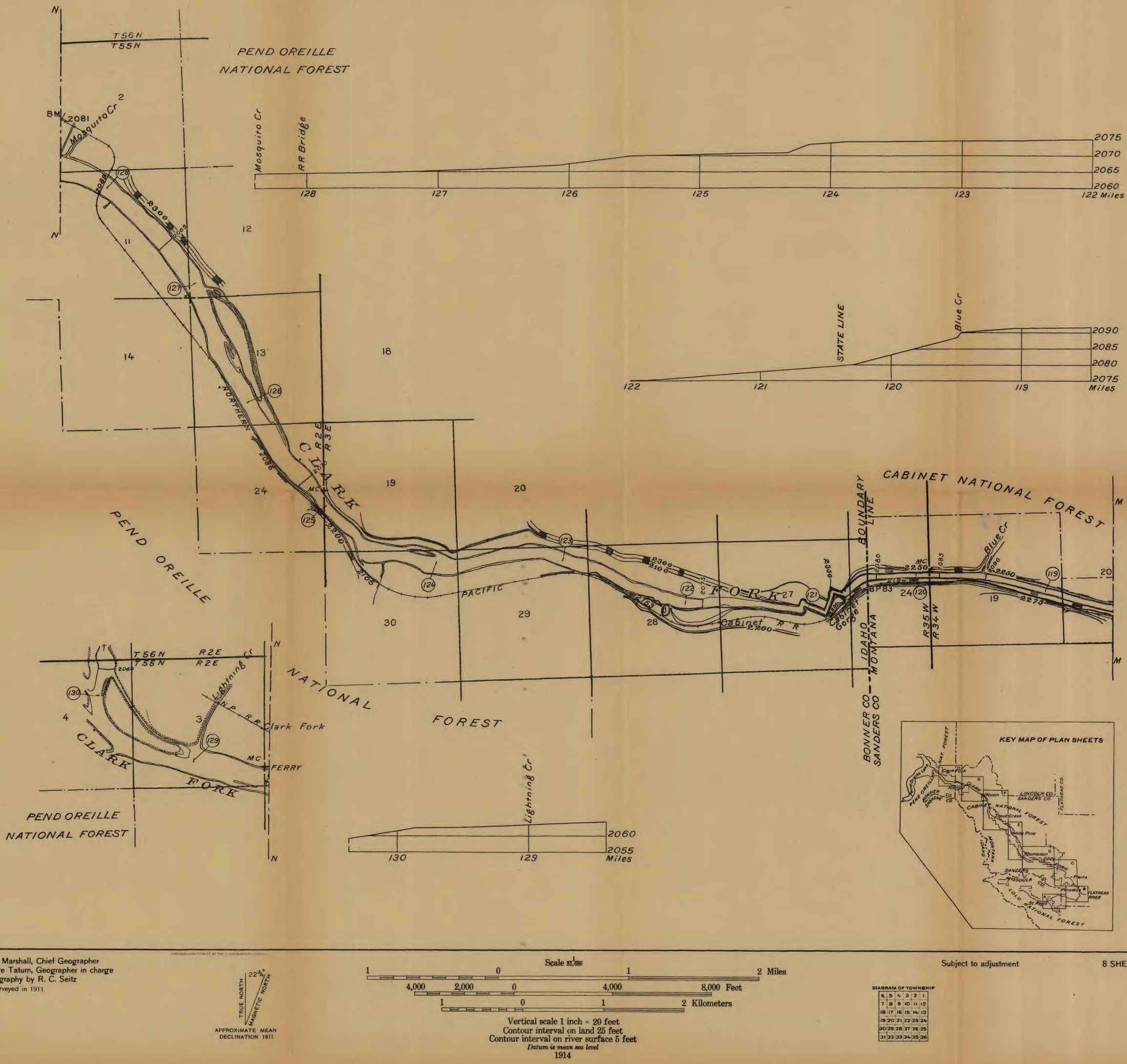
Subject to adjustment

8 SHEETS

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, ST. REGIS, MONTANA, TO PEND OREILLE LAKE, IDAHO

WATER-SUPPLY PAPER 346 PLATE II H



R. B. Marshall, Chief Geographer
Sledge Tatum, Geographer in charge
Topography by R. C. Seitz
Surveyed in 1911

ENGRAVED AND PRINTED BY THE U. S. GEOLOGICAL SURVEY

APPROXIMATE MEAN DECLINATION 1911

Scale 1/31,680

1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Vertical scale 1 inch = 20 feet
Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

Subject to adjustment

8 SHEETS

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
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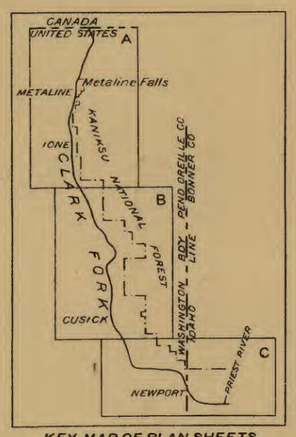
U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, INTERNATIONAL BOUNDARY, WASHINGTON, TO PRIEST RIVER, IDAHO

WATER-SUPPLY PAPER 346 PLATE III A



KEY MAP OF PLAN SHEETS

R. B. Marshall, Chief Geographer
T. G. Gerdine, Geographer in charge
Topography by A. P. Meade
Surveyed in 1912

ENGRAVED AND PRINTED BY THE U.S. GEOLOGICAL SURVEY

APPROXIMATE MEAN DECLINATION 1912

Scale 1/31,680

1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

Subject to adjustment

DIAGRAM OF TOWNSHIP

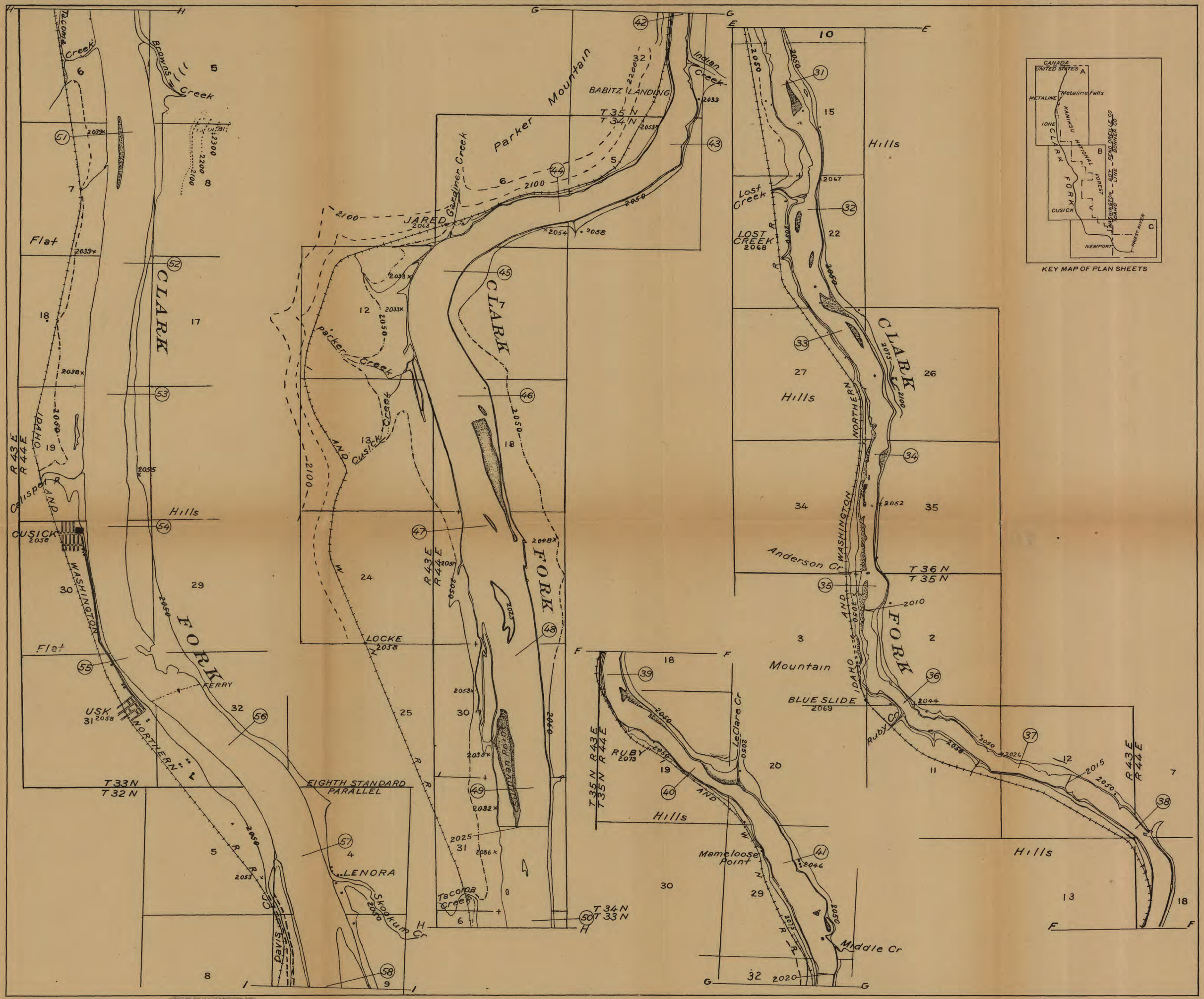
6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

5 SHEETS
(3 plans, 2 profiles)

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, INTERNATIONAL BOUNDARY, WASHINGTON, TO PRIEST RIVER, IDAHO

WATER-SUPPLY PAPER 346 PLATE III B



R. B. Marshall, Chief Geographer
T. G. Gerdine, Geographer in charge
Topography by A. P. Meade
Surveyed in 1912

APPROXIMATE MEAN DECLINATION 1912
23¾°
TRUE NORTH
MAGNETIC NORTH

Scale 1/31,680
1 0 1 2 Miles
4,000 2,000 0 4,000 8,000 Feet
1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

Subject to adjustment

DIAGRAM OF TOWNSHIP

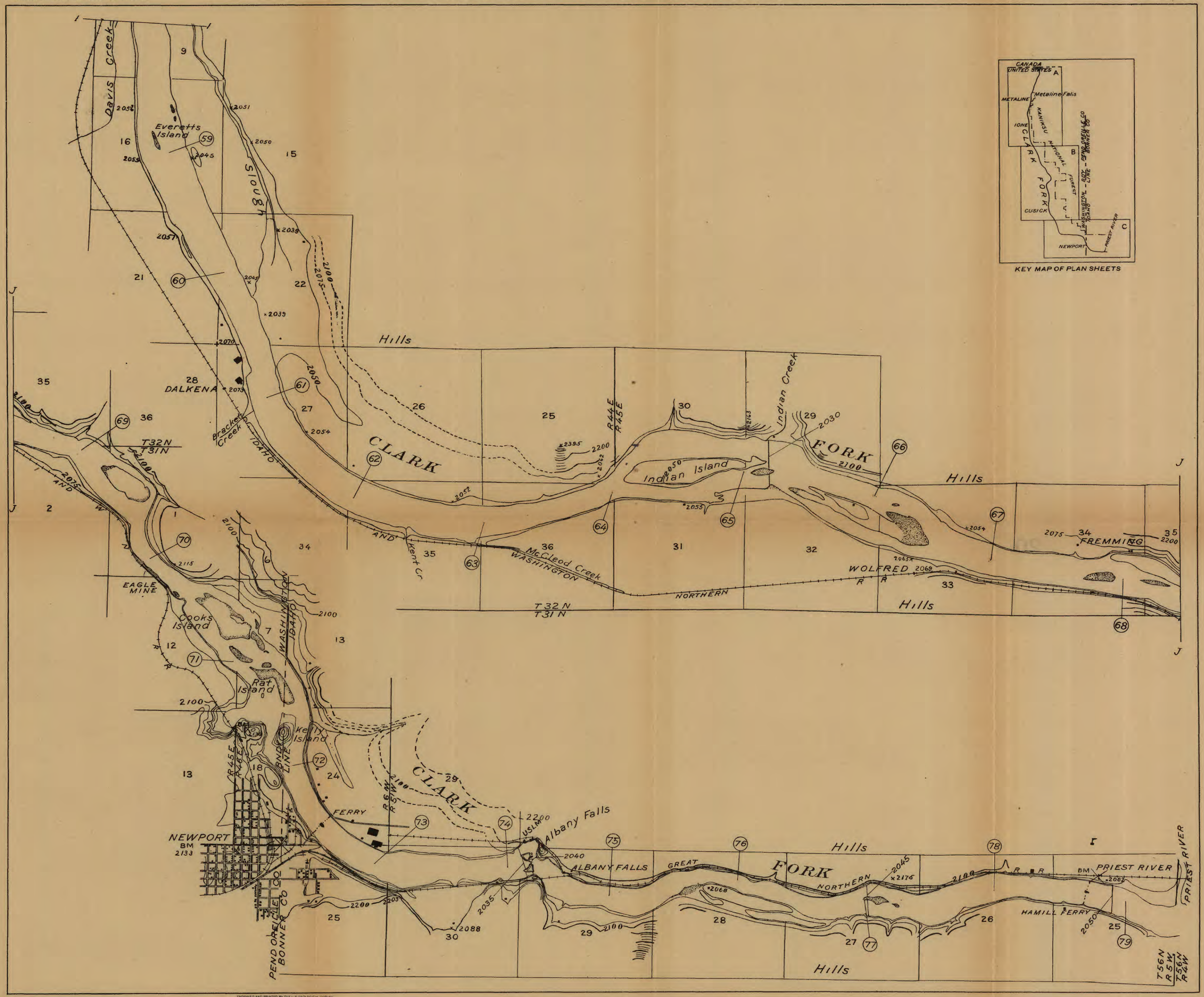
6	5	4	3	2	1	
7	8	9	10	11	12	
18	17	16	15	14	13	
19	20	21	22	23	24	
30	29	28	27	26	25	
31	32	33	34	35	36	

5 SHEETS
(3 plans, 2 profiles)

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, INTERNATIONAL BOUNDARY, WASHINGTON, TO PRIEST RIVER, IDAHO

WATER-SUPPLY PAPER 346 PLATE III C



KEY MAP OF PLAN SHEETS

R. B. Marshall, Chief Geographer
T. G. Gerdine, Geographer in charge
Topography by A. P. Meade
Surveyed in 1912

ENGRAVED AND PRINTED BY THE U. S. GEOLOGICAL SURVEY

APPROXIMATE MEAN DECLINATION 1912

Scale 1/31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Contour interval on land 25 feet
Contour interval on river surface 5 feet
Datum is mean sea level
1914

Subject to adjustment

5 SHEETS
(3 plans, 2 profiles)

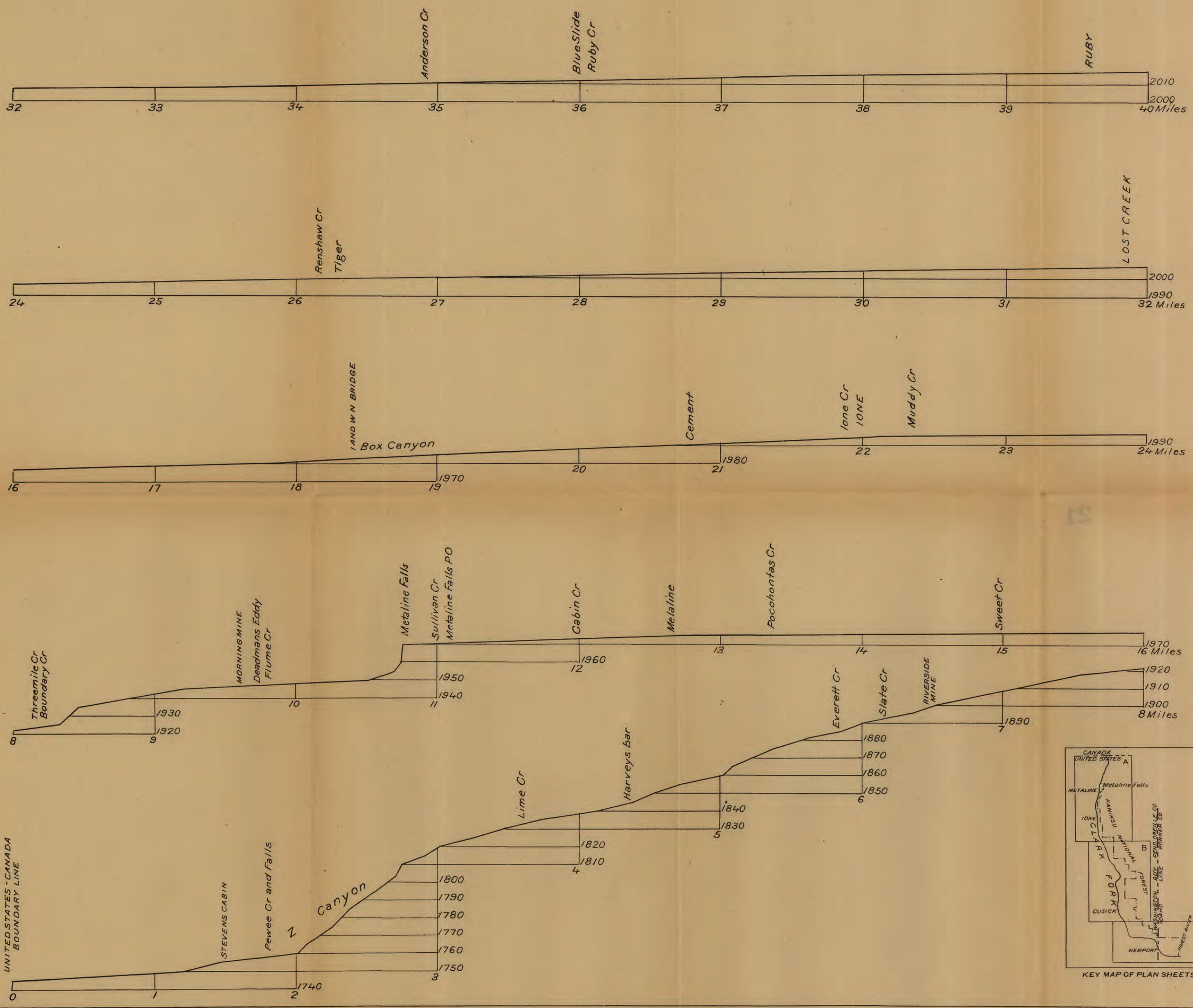
DIAGRAM OF TOWNSHIP

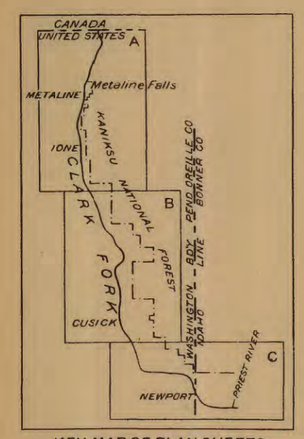
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PLAN AND PROFILE OF CLARK FORK, INTERNATIONAL BOUNDARY, WASHINGTON, TO PRIEST RIVER, IDAHO

WATER-SUPPLY PAPER 346 PLATE III D





KEY MAP OF PLAN SHEETS

R. B. Marshall, Chief Geographer
T. G. Gerdine, Geographer in charge
Topography by A. P. Meade
Surveyed in 1912

Scale 1/31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet

1914

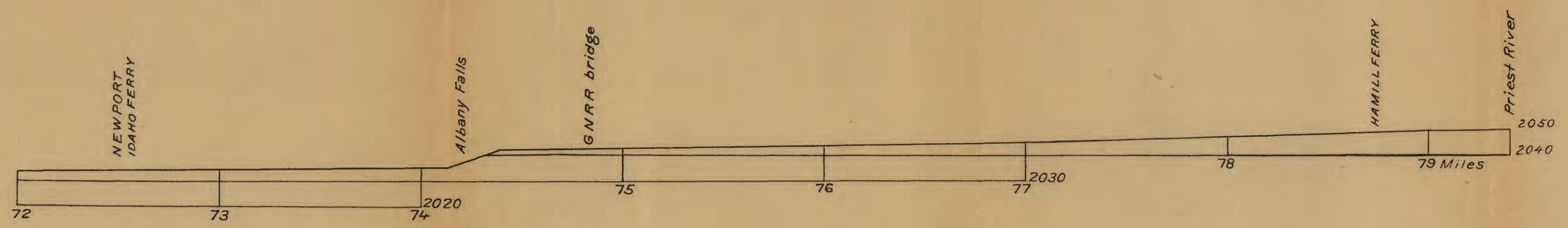
Subject to adjustment

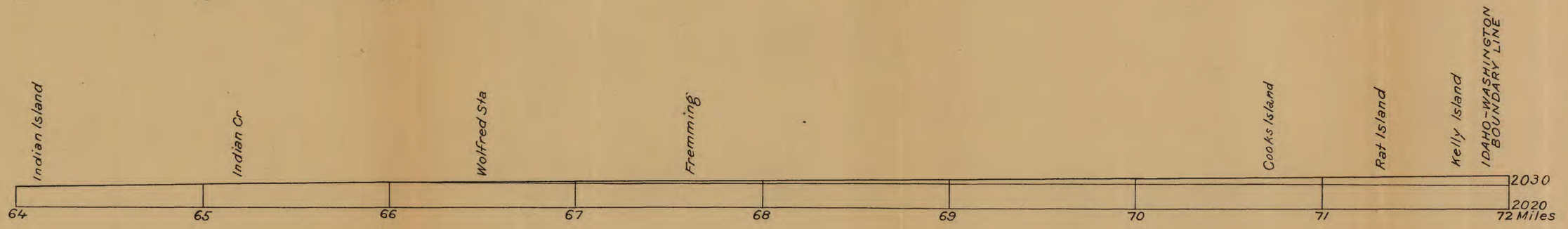
5 SHEETS
(3 plans, 2 profiles)

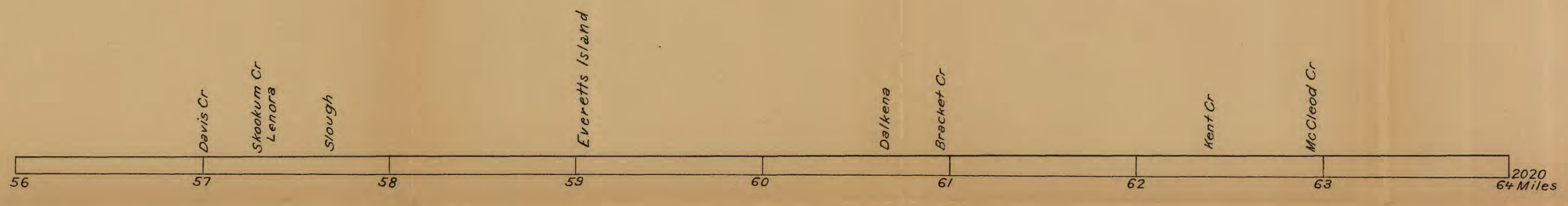
U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

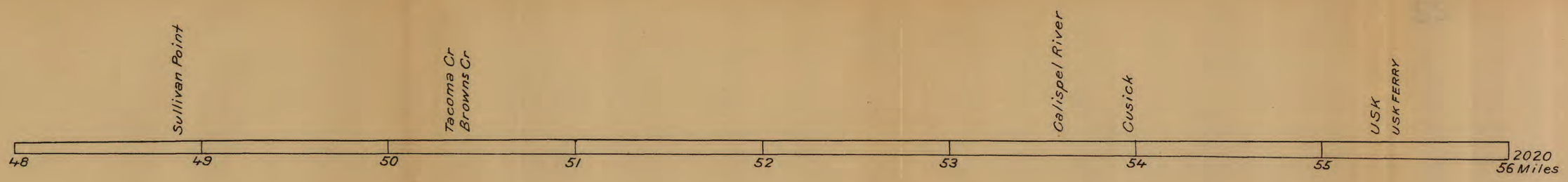
PLAN AND PROFILE OF CLARK FORK, INTERNATIONAL BOUNDARY, WASHINGTON, TO PRIEST RIVER, IDAHO

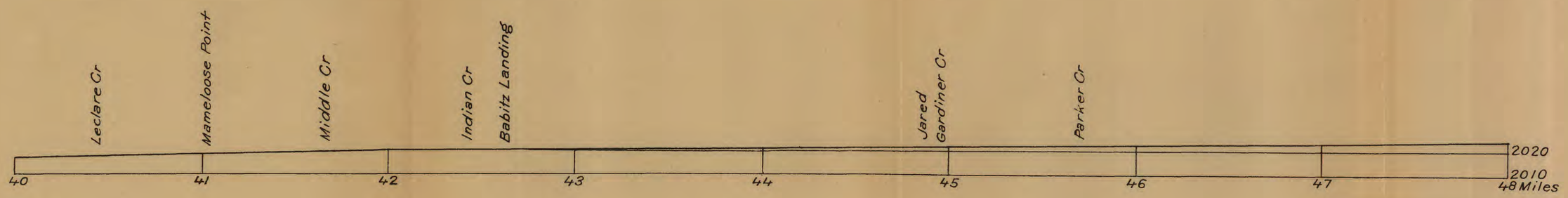
WATER-SUPPLY PAPER 346 PLATE III E

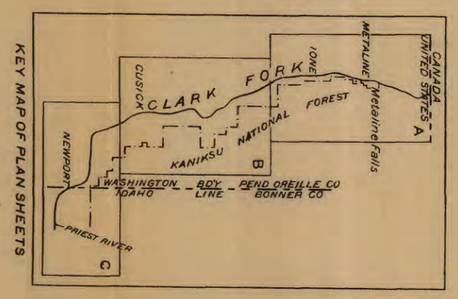












R. B. Marshall, Chief Geographer
T. G. Gerdine, Geographer in charge
Topography by A. P. Meade
Surveyed in 1912

ENGRAVED AND PRINTED BY THE U.S. GEOLOGICAL SURVEY

Scale 1/31,680

1 0 1 2 Miles

4,000 2,000 0 4,000 8,000 Feet

1 0 1 2 Kilometers

Vertical scale 1 inch = 40 feet

1914

Subject to adjustment

5 SHEETS
(3 plans, 2 profiles)