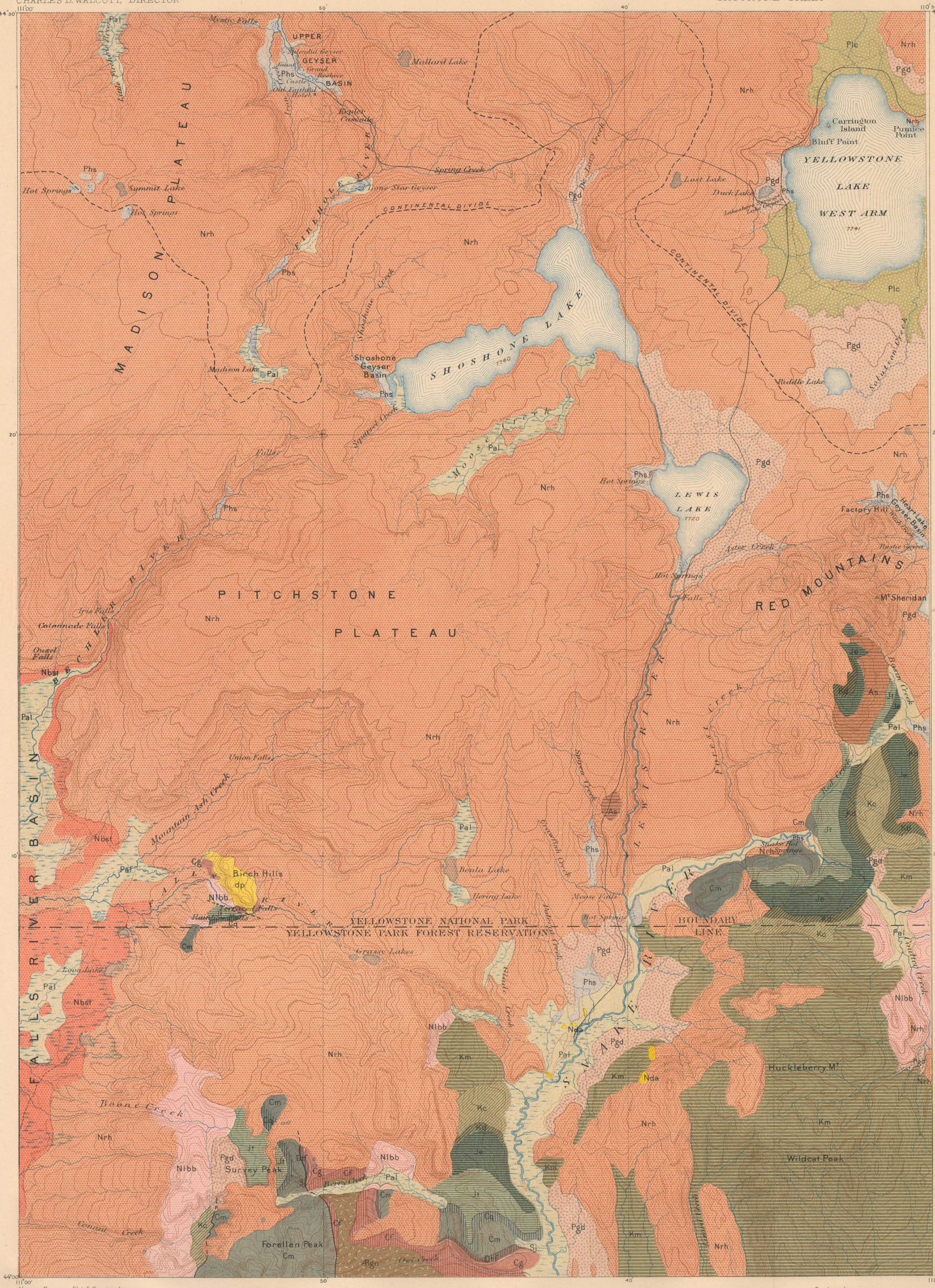
U. S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

AREAL GEOLOGY

YELLOWSTONE NATIONAL PARK - WYOMING
SHOSHONE SHEET



LEGEND
(continued)

IGNEOUS ROCKS
(Areas of Igneous rocks are shown by patterns of triangles and rhombs.)

NEOCENE

- **Nbst** — Basalt *(dark-gray or black lava flows, the most recent volcanic rock)*
- **Nrh** — Rhyolite *(mainly massive flows covering the greater part of the Park, varying from a glassy to a stony structure)*
- **Nda** — Dacite *(light-colored rock slightly more basic in composition than rhyolite, with which it is closely associated)*
- **Nlbb** — Late basic breccia *(rocks of similar mineral composition to the early basic breccia, but of later age)*
- **dp** — Dacite-porphyry *(white, quartzose and micaceous rocks intruded in sedimentary beds)*

UNCLASSIFIED CRYSTALLINE ROCKS
(Areas of metamorphic rocks of unknown origin are shown by patterns of short dashes)

ARCHEAN

- **Agn** — Granite and gneiss

Faults

LEGEND

SURFICIAL ROCKS
(Areas of Surficial rocks are shown by patterns of dots and circles.)

PLEISTOCENE

- **Phs** — Hot Spring formations *(siliceous or calcareous deposits, and solfataric areas)*
- **Pal** — Alluvium *(gravel and clay forming the stream bottoms and terraces along the valleys)*
- **Plc** — Lacustrine formation *(sand and gravel deposited during a higher stage of the lake)*
- **Pgd** — Glacial drift *(gravels, clays, and sands, distributed by glaciers of local origin)*

SEDIMENTARY ROCKS
(Areas of Sedimentary rocks are shown by patterns of parallel lines.)

CRETACEOUS

- **Km** — Montana formation *(including the Two Hills sandstone and Pierre shale not generally distinguishable)*
- **Kc** — Colorado formation *(including the Mowry limestone and Benton shale not generally distinguishable)*
- **Kd** — Dakota formation *(cream-colored quartzite, fresh-water limestone, and conglomerate)*

JURATRIAS

- **Je** — Ellis formation *(arenaceous limestone, marls, clay, and thin beds of argillaceous limestone)*
- **Jt** — Teton formation *(cherty limestone, red clay, and sandstone)*

CARBONIFEROUS

- **Cq** — Quadrant quartzite *(white, compact, massive quartzite with interbedded white limestones)*
- **Cm** — Madison limestone *(massive, white or cream colored limestone above dark, thin-bedded limestone)*

DEVONIAN

- **Drf** — Threeforks limestone *(massive, gray limestone, frequently thin-bedded and argillaceous)*

SILURIAN

- **Sj** — Jefferson limestone *(dark-blue, black or brown limestone, generally granular or arenaceous)*

CAMBRIAN

- **Ꞓg** — Gallatin limestone *(massive, mottled limestone overlain by thin-bedded limestone)*
- **Ꞓf** — Flathead formation *(limestone, shale, and quartzite)*

ALGONKIAN

- **As** — Sheridan quartzite *(dense, bluish-white quartzite)*

Legend is continued on the left margin.

Henry Gannett, Chief Geographer.
John H. Renshawe, Geographer in charge.
Triangulation by H. S. Chase.
Topography by W. H. Leffingwell, Frank Tweedy, J. H. Renshawe, and S. A. Aplin, Jr.
Surveyed in 1884-5.

Leffingwell, Aplin, Tweedy, J.H.R.

Scale $\frac{1}{125000}$
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour Interval 100 feet.
Datum is mean Sea level.

Edition of April 1896.

Geology by
Arnold Hague, Geologist in charge.
Joseph Paxson Iddings, and
Walter Harvey Weed.
Surveyed 1883 to 89, 90, 91, and 93.