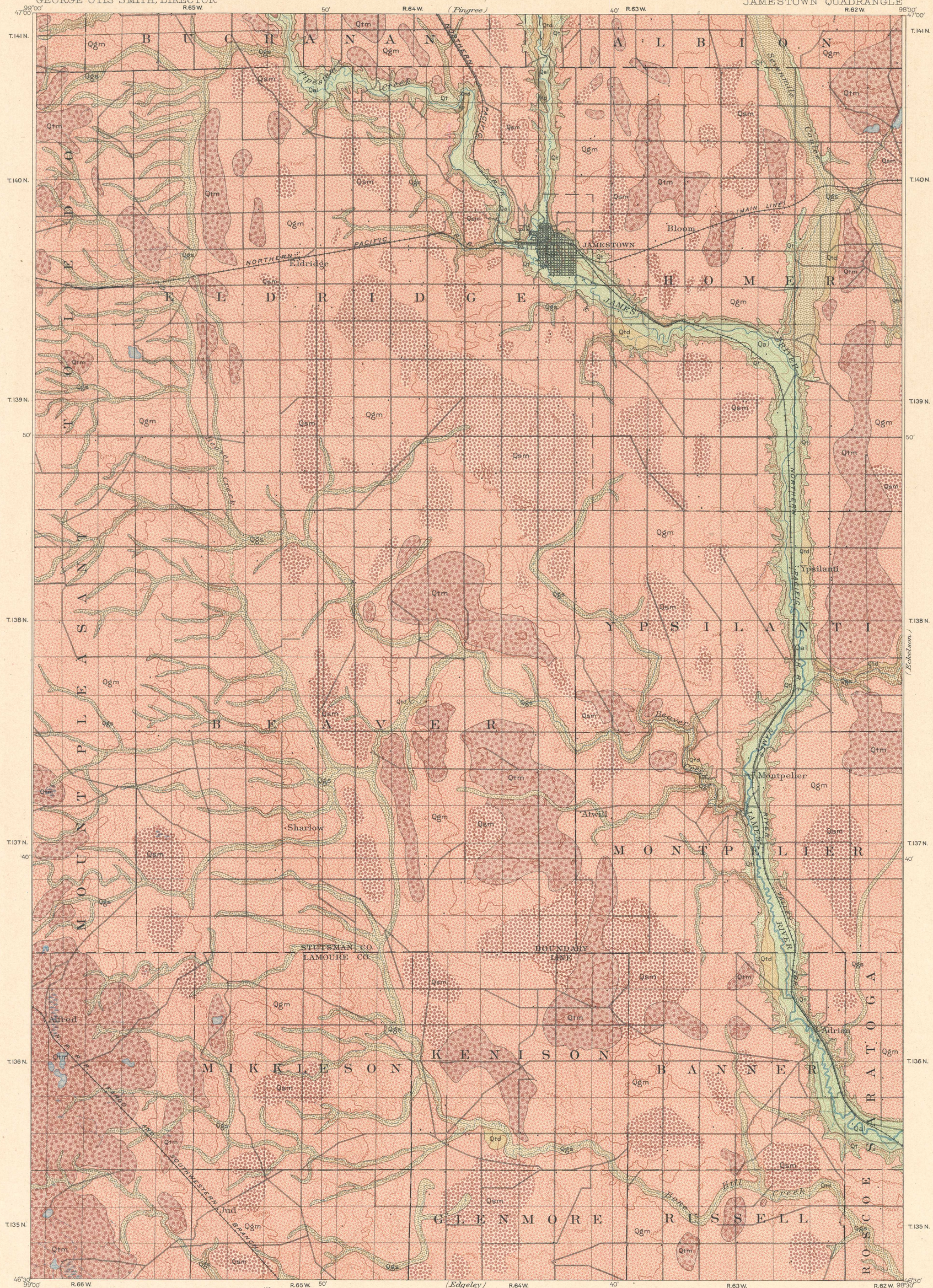
U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

AREAL GEOLOGY

NORTH DAKOTA
JAMESTOWN QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles.)

QUATERNARY

- Qal — **Alluvium** *(silt, sand, and gravel deposited in James and tributary valleys chiefly during glacial time)*
- Qt — **Talus slopes of drift** *(in James Valley)*
- Qgs — **Glacial stream deposits** *(occupying channels heading in terminal moraines)*
- Qtd — **Terrace deposits** *(in the James Valley and its tributaries)*
- Qsm — **Subdued terminal moraines** *(low drift hills, chiefly terminal moraines)*
- Qtm — **Terminal moraines**
- Qgm — **Ground moraine** *(till sheet)*

CRETACEOUS

- Kp — **Pierre shale**

Henry Gannett, Chief Topographer.
Jno. H. Renshawe, Topographer in charge.
Control by Geo. T. Hawkins.
Topography by Van H. Manning.
Surveyed in 1893.

APPROXIMATE MEAN DECLINATION 1908.
TRUE NORTH
MAGNETIC NORTH
12°

Scale 125000
1 ½ 0 1 2 3 4 5 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 20 feet.
Datum is mean sea level.
Edition of April 1909.

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	

Geology by Daniel E. Willard,
under supervision of N.H. Darton.
Surveyed in 1904 and 1905.