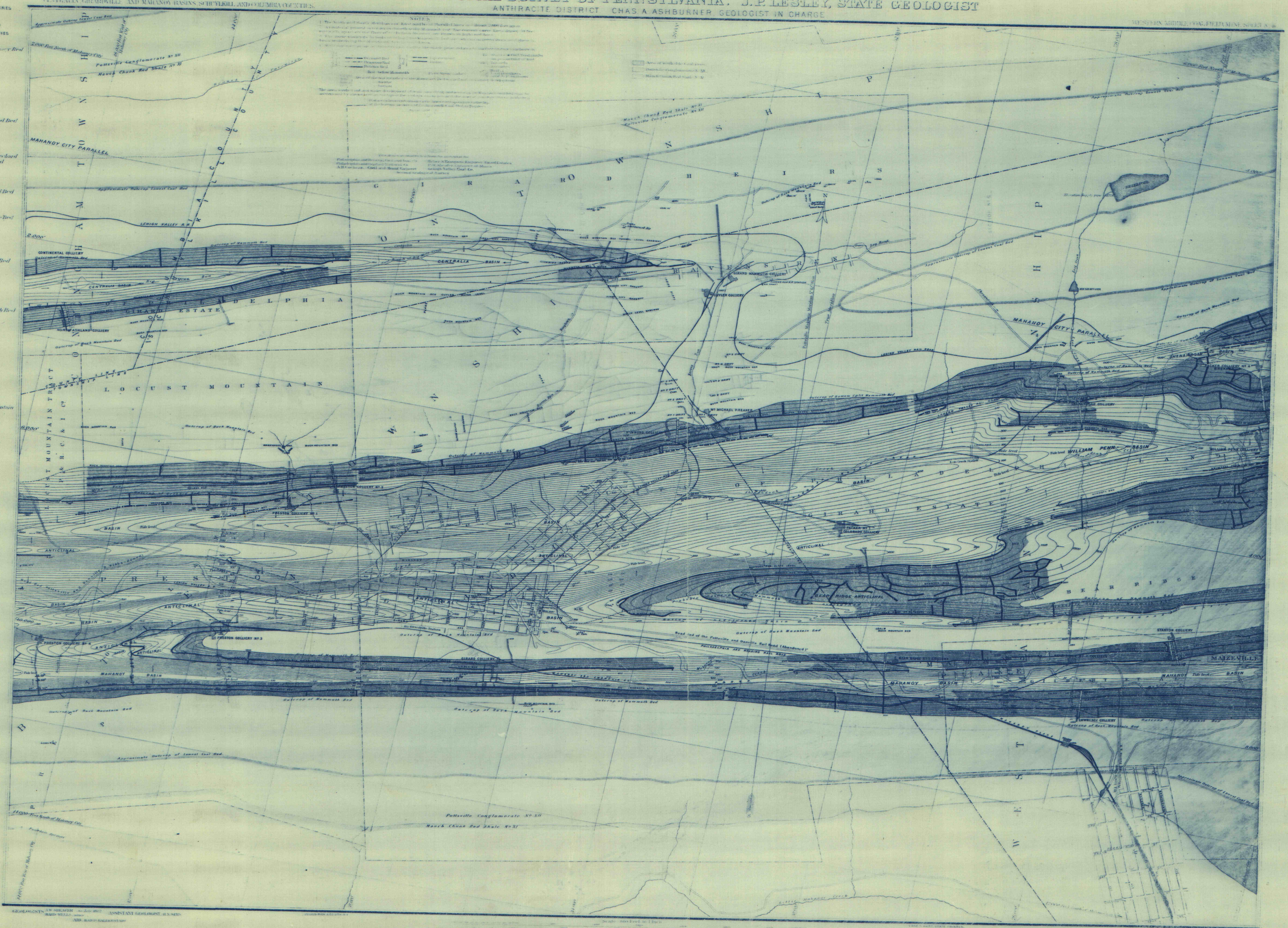


SECOND GEOLOGICAL SURVEY OF PENNSYLVANIA. J.P. LESLEY, STATE GEOLOGIST
 ANTHRACITE DISTRICT CHAS A ASHBURNER, GEOLOGIST IN CHARGE

SECTION OF COAL MEASURES
 GIBRARDVILLE SHEET
 HAWKINS PRESTON AND
 GIBRARD MAMMOTH COLLIERIES



NOVEMBER 1882.